

ORGANIZATIONAL EFFECTIVENESS AND EMERGENCY PLANNING IN
INSTITUTIONS HOUSING THE DEVELOPMENTALLY DISABLED

by

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ABSTRACT

Catering to understand the needs of the disabled population has been an important issue in the field of emergency management. However, there has been little research on the developmentally disabled populations and of populations in long-term care or institutional settings. Using organizational effectiveness theory, this research sets out to determine emergency planning performance at state-run institutions housing the developmentally disabled in four states: Washington, Colorado, South Carolina, and New Jersey. These states were selected due to their variation in policy structure, hazard risks, and rate of institutionalization. Emergency response plans from each of the facilities in the four states were selected and then analyzed for common themes in their content. In addition to this, a randomly selected institution from each state was interviewed about emergency planning processes and how successful they deemed themselves. It was discovered that there were various barriers that each state suffered from in implementing emergency planning procedures, which ranged from resource power to lack of structure. It was also found that increased hazard risk might drive institutions to perform better at emergency planning. It is recommended that lesser successful states examine their more successful counterparts and implement such practices into their own departmental and institutional entities.

This abstract accurately represents the content of the candidate's thesis. I recommend its publication.

Signed

A black rectangular box redacting the signature of the reviewer.

Brian J. Gerber

DEDICATION

I dedicate this thesis to my family, who taught me the importance of education and perseverance. I also dedicate this thesis to Carol Kirk and all of the staff at Frances Haddon Morgan Center, for their work and passion to the developmentally disabled community. Lastly, I dedicate this thesis to Matthew Kirk, for his unwavering support during the duration of my academic career.

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CHAPTER 1

INTRODUCTION

Background/Problem Definition

The process of managing disasters has changed rapidly over the years from its former focus in response to its current focus in planning and prevention. No longer are emergency managers tasked only with the cycle of mitigation, preparedness, response, and recovery; now there are numerous factors to consider when planning and organizing for communities. One subject that has come to light due to recent disasters is that some populations are more vulnerable than others. This has led experts to study this concept more rigorously in order to determine how to best serve their needs.

In understanding why some populations are more susceptible to hazards than others, scholars use the concept of social vulnerability. Social vulnerability deals with the idea that social factors affect a group's ability to respond to and recover from a disaster and can involve the "basic provision of health care, the livability of places, overall indicators of quality of life, and accessibility to lifelines (goods, services, emergency response personnel), capital, and political representation" (Cutter, 2006).

One group that has been focused on post-Hurricane Katrina has been the disabled population. Literature has shown that these populations are more often than not living independently and that there is a disproportion of resources for these populations to utilize during emergency situations. Vulnerabilities could include inadequate evacuation routes, lower income levels than that of general populations, and a lack of social networks, to name a few. While there have been reforms in the

last few years that have encouraged local governments to address the visually and hearing impaired in their communities, there has not been much work dealing with other types of disabilities. such as the developmentally disabled. Even more troubling is the lack of study for disabled populations that are housed in group-home settings or institutions. Because of this, there are bound to be problems with this particular population with the next large-scale disaster.

There are two issues with the current literature that encompasses disabled populations and how they are treated in disaster situations:

1) The lack of research in developmentally disabled populations

The majority of the work in addressing disabled populations focuses solely on physical handicaps. While there are guidelines that address populations with cognitive difficulties in an emergency, these guidelines refer to cognitive disabilities as someone who lacks memory and needs help remembering things, failing to recognize developmentally or cognitively compromised populations with conditions that “may affect a person’s ability to listen, think, speak, read, write, do math, or follow instructions” (NCD, 2009). For example, one tip regarding communication refers to “[thinking] about what a rescuer might need to know about you and be prepared to say it briefly” (Independent Living Resource Center San Francisco, 2010). However, this model does not address the variations encompassed within the blanket term of cognitive disabilities. There are a number of people who have developmentally disabilities living in institutions or group-homes, and the literature has not addressed those individuals.

2) The reliance on institutional entities to emergency plan for their clients

Though federal guidelines exist for disabled populations that live independently within a community, ensuring their civil rights, the protections of the American with Disabilities Act do not address those that live within a state run group-home or institution. It is assumed that because state institutions reside under other organizational authority, they have reinforced emergency preparedness and response guidelines to each institution. However, these settings are often underfunded and staff members are busy with rehabilitation activities with their clients. Another potential problem is that managers may not have the expertise to emergency plan effectively. Lastly, it is unclear whether or not state governments are vigilant in ensuring that these facilities are properly prepared for disasters.

Research Questions

The purpose of this thesis is to compare state jurisdictions and study how they address emergency planning for their institutions that house the developmentally disabled. By looking to see the ways in which these institutions succeed or not, we can build a dialogue for how states can better reinforce guidelines for emergency planning for this population.

Research Question 1:

What information is being included in emergency plans for state-run institutions housing the developmentally disabled?

- a. What parts of the emergency plan are related to the needs of the developmentally disabled populations specifically?

Research Question 2:

How successful are facilities at implementing emergency preparedness and response practices, and if they are not successful, why not?

- a. What aspects of facility plans create conditions for facilities to succeed or not succeed in implementation?

By looking at the emergency plans for state institutions that house the developmentally disabled and analyzing what procedures they have in place, we can understand the knowledge level of organizational entities and can gauge how effective they are in implementing their emergency plans.

CHAPTER 2

REVIEW OF THE LITERATURE

In order to explore the complexities of this topic, it is necessary to understand the origins of vulnerable populations and how they have impacted the emergency management literature. Then, a comprehensive history of the disabilities policy and its relation to emergency management will be discussed. Lastly, the history of long-term care and developmental disabilities and its impact on emergency management literature will be covered. This will shape the context of the research in order to understand the deficits in the knowledge surrounding this particular population.

Social Vulnerability and Special Needs Populations

The concept of people and their vulnerability stems from the work of Blaikie et. al (2004), where they describe the theory as “characteristics of a person or group and their situation that influence their capacity to anticipate, cope with, resist and recover from the impact of a natural hazard...[these impacts could] include class, occupation, caste, ethnicity, gender, disability, and health status, age and immigration status, and the nature and extent of social networks” (p. 11). However, later research has suggested that this definition of vulnerability has grouped populations together that have little, if anything in common.

The concept of social vulnerability has prompted emergency management policy to group these populations into what is referred to as “special needs” populations. This is defined as:

[Populations] whose members may have additional needs before, during, and after an incident in one or more of the following functional areas: maintaining independence, communication, transportation, supervision, and medical care. Individuals in need of additional response assistance may include those who have disabilities; who live in institutionalized settings; who are elderly; who are children; who are from diverse cultures, who have limited English proficiency, or who are non-English speaking; or who are transportation disadvantaged” (U.S. Department of Homeland Security, n.d.).

While this breaks down Blaikie’s concept of vulnerability into specific subgroups that could need additional help during a disaster situation, Kailes and Enders (2007) conducted a demographic analysis that counted all of the groups deemed as “vulnerable” or “special needs” together. They found that over 50% of the population could be considered as vulnerable, therefore deeming a need for more specificity in the definition (p. 232). More research must be done on each particular population considered vulnerable in order to determine the nuances while maintaining a framework that is flexible for all special needs populations.

A further understanding of vulnerability goes past particular characteristics. While a person may be disabled, it is not that person’s condition that makes them vulnerable. It is instead:

...the failure of society to recognize that a condition such as poverty means you cannot mitigate risk, live in a safer location, or afford to evacuate when told to do so. When disaster managers and political leaders fail to design warning systems that reach people who are deaf

or to provide paratransit systems to evacuate a wheelchair user, society bears responsibility for the consequences. Social vulnerability thus results from social inequalities and historic patterns of social relations that manifest as deeply embedded social structural barriers that are resistant to change (Phillips and Fordham, 2010, p. 4).

This quote embodies that it is the environment in which we exist that exacerbates the vulnerability of particular conditions like disabilities, poverty, and ethnicity when a disaster occurs. Social vulnerability, therefore, diverges from the dominant view that disasters are a “result of nature impinging upon human society [and] there can be little done to change the situation” (Phillips and Fordham, 2010, pg. 7). It instead emphasizes that there are conditions within society that become more exacerbated when a disaster occurs, such as those characteristics that are described as “special needs” populations above.

Definition of Disabilities and Approaches to Policy

Part of this literature describing “special needs” populations points to the disabilities community as one that is particularly vulnerable to disasters. According to the Americans with Disabilities Act of 1990, an individual is considered as disabled if they:

- 1) [Have] a physical or mental impairment that substantially limits a major life activity
- 2) [Have] a record of such impairment
- 3) [Are] regarded as having such an impairment.

Many models have been used when addressing the disabilities population, and policies have followed suit. First, the medical model was used, which treated a disability like a sickness and was solely handled by the health care system (Clive et. al., 2010, p. 192). This is in contrast to the socio-political model, which views society as a problem, due to their lack of accommodation for the disabled and, subsequently, prejudice and discrimination (Hubbard, 2004).

But the model that has taken a stronghold in the disabilities policy arena is the functional model, which emphasizes the differences of the individual and the necessity for communication between the disabilities community and planners to determine their needs in a disaster and how to best meet them (Clive et. al., 2010, p. 193). This allows for customization, as each person's needs and level of functioning are different. As a result, the majority of literature is focused on ensuring that individuals maintain their own independence and capabilities, rather than segregating them into an inclusive group that is portrayed as "needy" (Hewitt, 1997; Kailes and Enders, 2007). This had led to advances in how certain types of disabilities are addressed in the emergency management literature, specifically those with physical impairments.

Legislative History for Disabled Populations and Emergency Management

Traditionally, anyone with disabilities was grouped together as a way to signify inclusiveness. This pattern was first acknowledged in the Americans with Disabilities Act of 1990. Its purpose is to "[prohibit] discrimination on the basis of disability in employment, state and local government, public accommodations, commercial facilities, public and private transportation, and telecommunication." Sharona Hoffman (2009) writes that ADA, in combination with the Rehabilitation

Act of 1973, implies that not only should society not discriminate against the disabled, but it should also accommodate their needs (p. 1522). While Title II of the ADA relates to the disabled having the same level of access to public services as others, it does not require “state or local emergency management programs to take actions that would fundamentally alter the nature of a program, service, or activity or impose undue financial and administrative burdens.”

While the ADA legislation does cover emergency management implicitly, this issue did not become prominent until the 9/11 attacks, due to problems of evacuating disabled populations in the World Trade Towers. This resulted in the creation of Executive Order 13,347 in 2004, which established the Interagency Coordinating Council on Emergency Preparedness and Individuals with Disabilities. The Council’s intention is to ensure that Federal policy supports individuals with disabilities in a disaster. The Council’s progress report for 2005-2006 lists recommendations that would revise current emergency management frameworks to include special needs issues and also addresses issues that were raised with disabled populations in Hurricane Katrina (U.S. Department of Homeland Security, n.d., p. 43). While legislation has been amended to address inclusion issues of disabled populations in disasters, it has yet to be seen if the U.S. can handle another major catastrophe.

While the ICC has made the federal government’s role in implementing policies a priority, the National Council on Disability has also played a prominent role in raising awareness regarding disabled populations in emergency preparedness and response. Created in 1978 as an advisory board to the Department of Education, it became its own independent agency following the passing of the Rehabilitation Act in 1985. Since 2003, it has published reports on emergency preparedness. As a result of their work, appropriations were made to require FEMA to employ a National

Disability Coordinator, along with work with NCD in partnership to engage stakeholders in how to serve the disabled in emergency situations (NCD, 2009).

The most recent piece of legislation that addresses vulnerable populations in disasters is the Post-Katrina Emergency Management Reform Act of 2006. This act was an amendment to the Robert T. Stafford Act of 1988, and adds in language that addresses disability issues explicitly. Section 689 states the guidelines for individuals with disabilities, ensuring that these individuals are able to access emergency management programs and services without discrimination. This law also establishes the position of a National Disability Coordinator within the Department of Homeland Security (Clive et. al., 2010, pg. 195).

Though the federal government has taken notice of these gaps and enacted policies that address the needs of disabled populations in disasters, state and local governments have not nearly been studied enough to determine whether or not this body of knowledge has informed their jurisdictions. The language in the ADA legislation does not explicitly describe requisites that state and local governments must follow in making public services accessible to the disabled. While it is normal for federal government to delegate specificity to local jurisdictions, the clause allowing states to not alter programs or go through financial burdens to maintain these programs creates much ambiguity as to enacting such policies.

Issues of Long-Term Care Facilities and Emergency Management

While the majority of the issues discussed are concerned with the disabilities population in a community, there is a deficit in research surrounding emergency planning in long-term care or congregate care facilities. What will follow are the

ways that emergency planning and response for facilities housing disabled populations differ than those for individuals with disabilities living independently.

While local government can recommend individuals in a community to evacuate, long-term care facilities are often left out of this equation. These long-term care facilities can house people with severe disabilities or elderly populations. Because of the complications with moving large numbers of people, scholars recommend that they be “relocated to a facility with the same or higher-skilled staffing and care capabilities” (Clive et. al., 2010, pg. 200). The individuals living in a facility have much more severe disabilities and therefore rely mostly on direct care providers. However, in an emergency they may be separated from their attendants, which can leave them disoriented and confused.

The continuity of care principle is another issue with the emergency response of long-term care facilities. Part of the recovery cycle of emergency management involves resuming normal operations. However, for individuals that are part of an organizational entity, it is much harder to sustain the same standards of care when forced to evacuate to a new location without the guarantee of care from their assigned care provider. There were numerous instances during Hurricane Katrina where helpers abandoned their clients in order to tend to their families (Clive et. al., 2010, pg. 204). This is an issue that has yet to be addressed on a broad level, making it essential for emergency managers to reach out to the administrators of these long-term facilities in order to plan ahead.

The Developmentally Disabled in History

According to the Developmental Disabilities Assistance and Bill of Rights Act of 2000, the term “developmental disability” means a severe, chronic disability of an individual that—

- (i) is attributable to a mental or physical impairment or combination of mental and physical impairments;
- (ii) is manifested before the individual attains age 22;
- (iii) is likely to continue indefinitely;
- (iv) results in substantial functional limitations in 3 or more of the following areas of major life activity:
 - (I) Self-care.
 - (II) Receptive and expressive language.
 - (III) Learning.
 - (IV) Mobility.
 - (V) Self-direction.
 - (VI) Capacity for independent living.
 - (VII) Economic self-sufficiency.

Similarly, the National Council on Disabilities (2009) defines “developmental” and “cognitive” disabilities as conditions that “[impact] a person’s ability to listen, think, speak, read, write, do math, or follow instructions” (p. 47). It has also been defined as “a substantial handicap in mental or physical functioning, with onset before the age of 18 and of indefinite duration” (Council of State Governments, 2002).

Historically, the developmentally disabled were treated either by their families or by hospitals run by religious orders (Bloom, 1984, p. 7). President Kennedy shifted the attitude towards developmentally disabled populations and signed legislation was

intended to “provide assistance in combating mental retardation through grants for construction for research centers and grants for facilities for the mentally retarded and assistance in improving mental health through grants for construction of community mental health centers (Community Mental Health Act of 1963).” This act addressed mental retardation and encouraged a new model of services that focused on three components: prevention, which focuses on prenatal care; community services, which calls for the abolition of custodial-based services and emphasized more clinics and rehabilitation services for this population; and research, which allocates funds for scientific investigation of human development (Kennedy, 1963). This was the first time that mental retardation and mental health were considered as significant policy issues that needed to be addressed. President Kennedy’s sister, Rosemary Kennedy, had intellectual disabilities and their family’s prominence started the movement to see intellectual disabled individuals in a more positive light (John F. Kennedy Presidential Museum and Library, n.d.).

This legislation was later amended into what became the Development Disabilities Services and Facilities Construction Amendments of 1970, which were intended to:

“Assist the States in developing a plan for the provision of comprehensive services to persons affected by mental retardation and other developmental disabilities originating in childhood, to assist the States in the provision of such services in accordance with such plan, to assist in the construction of facilities to provide the services needed to carry out such plan, and for other purposes.”

This bill has been amended many times, most recently as the Developmental Disabilities Assistance and Bill of Rights Act of 2000, which appropriates more support services and funding to states to care for these populations, guarantees individuals with developmental disabilities their civil rights, appropriates grants for universities engaged in research in intellectual disabilities, and offers program support to direct care staffers who work with these populations.

Legislation also exists guaranteeing the civil rights of institutionalized persons. This legislation was prompted by the seminal work of Wolf Wolfensburg (1969), who hypothesized that social construction of developmentally disabled individuals determined the models for the institutions or facilities built for their residence. His theory is that these individuals were largely seen as deviant, or “perceived as being significantly different from others in some overt aspect, and if this difference is negatively valued” (Section 14). Because of this, this population has been treated as subpar, which has affected the type and model of care given to them. Wolfensburg’s work prompted the passing of the Civil Rights of Institutionalized Persons Act in 1980, which “[allows] the Attorney General to uncover and correct widespread deficiencies that seriously jeopardize the health and safety of residents of institutions” (Department of Justice, 2006).

Today, residential facilities for the developmentally disabled practice occupational therapy, which “enable[s] people to participate in the activities of everyday life. [This is achieved] by working with people and communities to enhance their ability to engage in the occupations they want to, need to, or are expected to do, or by modifying the occupation or the environment to better support their occupational engagement” (World Federation of Occupational Therapists, 2004). This

gives individuals residing in these facilities the same opportunities to participate in society and live a relatively normal life.

The Developmentally Disabled and Emergency Management

Because of the move to incorporate the disabled populations into general all hazards planning, it has been assumed that the disabled residing in institutions are covered under organizational jurisdictions. The developmentally disabled are one group that has not been touched on in discussing emergency preparedness and response. Emergency situations could affect a person's ability to understand instructions, create fear of unfamiliar people, and lead to isolation in shelter environments if separated from their family or caretakers, to name a few. Coupled with the fact that some of these populations are in state-run institutions on little money; such unpreparedness makes the organizational structure of these facilities extremely vulnerable to disasters.

The emergency planning and evacuation guidelines were enacted as the Omnibus Budget Reconciliation Act of 1987, which yielded extensive revisions of standards for nursing facilities under Medicare and Medicaid. These regulations are stated in Title 42 of the Code of Federal Regulations, under Part 483, which is designated as the Requirements for States and Long-Term Care Facilities. The regulations state that these facilities must "develop and implement detailed written plans and procedures to meet all potential emergencies and disasters such as fire, severe weather, and missing clients...and must communicate, periodically review, make the plan available, and provide training to the staff" (42 U.S.C. §483.75). However, the regulations regarding emergency planning are limited in comparison to the details regarding evacuation drills and procedures and fire protection.

Scholars have addressed emergency preparedness in regards to the developmentally disabled by studying evacuation behaviors. Shields et al. (1999a) conducted an unannounced evacuation at two residential care facilities in Northern Ireland at 11:30 pm. These facilities had gone through routine drills in the daytime. From the results, it was clear that skills learned in the daytime didn't transfer to nighttime activities, and that training needed to be done to link learning difficulty with predictable evacuation behavior (Shields et. al., 1999a, p. 48). This need for additional training in the developmentally disabled community has been echoed by Rae and Roll (1985), who concluded in their evacuation drills that daily practice, graduated guidance, and social praise were the key elements to reduce time spent evacuating a building.

However, facilities may not have much manpower and/or time to train their residents for evacuation procedures. Shields et al. (1999b) emphasize the need for training not only those residing in the facilities, but also staff members. They argue that there is not a benchmark for how staff will react in a realistic emergency versus a drill, and recommend that staff members are the success factor in evacuating in an emergency. While this may seem like an obvious solution, it is unclear whether or not these facilities have the time to implement training their staff members on how to react to an emergency properly.

While this problem has been recognized by the literature and legislation, it is unknown whether or not states have recognized this policy and implemented it within their jurisdictions. It is also unclear if these states are vigilant about making sure that their long-term care facilities satisfy the requirements.

CHAPTER 3

CONCEPTUAL FRAMEWORK

The Origins of Organizational Effectiveness

While there has been an increase in policies that require states and long-term care facilities to write emergency plans, there has been little study on whether the facilities themselves have complied. In the context of a residential facility, evaluating emergency planning is conducive to activities conducted within the entity itself, otherwise known as organizational effectiveness. Organizational effectiveness is loosely defined as “the extent to which an organization as a social system, given certain resources and means, fulfills its objectives without incapacitating its means and resources and without placing undue strain upon its members” (Georgopoulos and Tannenbaum, 1957, p. 536-537).

Scholars in organizational effectiveness have broken into two camps in regards to their approaches. Some scholars focus on goal setting, which is defined by “a desired state of affairs which the organization attempts to realize” (Etzioni, 1964). Price (1972) further defines the concept as “[effectiveness] in terms of the degree of goal-achievement. The greater degree to which an organization achieves its goals...the greater its effectiveness” (p. 3). While research has criticized the goals approach for its difficult to decide which goals an organization is to fulfill, there are yet four things an organization can focus their research on in this model: major decision makers, organizational goals, operative goals, and intentions and activities (Price, 1972, p. 5-6). However, while goal setting can work very well for an organization that has outputs such as profit to rely on, other organizations,

specifically non-profit and public organizations. do not have the same output measurement.

The other method that was created in response to the goal setting's criticisms is the systems approach, which states: "Inputs into an organization are more important than their outputs because an organization's facility to maintain sufficient resources for survival is the most important indicator of effectiveness" (Sowa et. al., 2004, p. 713). Seashore and Yuchtman (1967) describe the systems approach with more depth, stating, "systems are continuously engaged in processes of exchange with their environments," therefore:

"Effectiveness in organizations can thus be viewed as the relative bargaining position of organizations in relation to resources over which there is competition. We define the effectiveness of an organization as its ability to exploit its environments in the acquisition of scarce and valued resources to sustain its functioning" (p. 393).

While this approach is much easier to measure than the goal setting approach, it also is wrought with criticism. Price (1972) criticizes the systems approach by stating, "Optimization is not measured, few general measures are used, and the basic rule of mutual exclusiveness with respect to the definition of effectiveness is seriously violated" (p. 13).

There are other scholars who have claimed major problems within the body of the organizational effectiveness literature. Steers (1975) has cited a number of problems: construct validity, criterion stability, time perspectives, multiple criteria, precision of measurement, generalizability, theoretical relevance, and level of analysis. He suggests that a model of effectiveness must make sure that criterion

specification is flexible enough to account for diversity in goal preferences while allowing for a differentiation in weight in evaluation criteria and optimizing the goal by the feasibility of such criteria (p. 555).

While there has been much debate in the differentiation between measuring organizational effectiveness in for-profit vs. nonprofit and public entities, the field has branched off into studying these sectors separately. Because of the variation in public and nonprofit organizations, it is difficult to pin down a theory of effectiveness that can be applied to all organizations.

Government Performance & Why Management Matters

Pioneers in evaluating government performance are Ingraham et. al. (2003), who assert:

“Presuming that administrative structures and technologies may be more or less coherent across governments and agencies, that leaders may be more or less effectual, and that the degree to which integration and a managing for results focus exist may also fluctuate, it is possible to imagine that a government’s or an agency’s ability to manage effectively varies dramatically” (p. 24).

Using this assumption, they construct a government performance framework that relies on four levers: management systems, leadership, integration and alignment, and results focus. Management systems deal with four components: financial, information technology, human resources and capital management. Leadership deals with the influence held when setting priorities and the “vision” of an organization. Integration and alignment has to do with how leadership, use of information, and allocation of resources all work together in order to execute an organization’s vision. Results focus

deals with the environment they are working in, along with what type of units are being used to measure effectiveness. These four concepts can be dissected and put back together in order give us a more complete picture of an organization and how their operations translate into success.

However, these assertions about how a governmental organization operates are still not clear when applied to the context of the particular organization being studied. An institutional setting for developmentally disabled populations has goals that need to be met in order to contribute to the care and wellbeing of these individuals. While emergency planning is a part of that care and wellbeing, it may be neglected because of its specialized knowledge that most people do not have access to. In order to know more about evaluating emergency planning on the organizational level, it is necessary to examine how it has been done in the emergency management literature itself.

Organizational Effectiveness and Emergency Management

While the field of organizational effectiveness in general can become confusing when grappling with how to measure success in an organizational entity, the same problem has plagued emergency managers. There are a few problems associated with measuring performance with emergency management. First, only a limited set of cases can be used to examine performance due to the inability to predict when a disaster or hazard will occur. Second, each disaster or hazard poses different characteristics that may or may not have been encountered prior. Third, emergency management can be the main goal of an organization (Such as a local government emergency management office) or a segment of a larger organization (a business, a hospital, or a school). Lastly, there are so many variables that create a particular hazard, disaster, or vulnerability in a community. However, scholars have made

significant headway in the last ten years, building frameworks that provide a sense of how success is measured when managing an emergency.

The majority of the research in evaluating emergency management programs has come from a local government standpoint. There are many approaches that scholars have taken to characterize the best methods to evaluate performance in emergency management. Some have called for implementation guidelines (Perry and Lindell, 2003), while some have called for qualitative principles that differentiate good disaster planning from bad disaster planning (Alexander, 2002; Quarantelli, 1998). In contrast, there is a body of literature that relies heavily on indexes and operational indicators in order to develop performance scores (Gillespie and Streeter, 1987; Simpson, 2006). Henstra (2010) compiles all of this literature into a framework that defines quality as “the extent to which a local government has adopted policies to prepare for emergencies, mitigate their impacts, ensure an effective emergency response, and facilitate community recovery” (p. 238). He breaks up the four parts of preparedness, response, recovery, and mitigation into smaller segments and draws on the principles and implementation guidelines that scholars have defined in order to create a tool that local emergency management agencies can use to determine what they succeed and/or fail at.

Alexander (2005) has expanded on his work regarding principles of emergency planning and has asserted that he is concerned with the inconsistency between local jurisdiction plans that are unified under a regional command. He cites the problems that emergency planners are faced with (balance of flexibility and rigidity to standards, integration into other organizational units, coordination with all stakeholders) and calls for a list of eighteen points to keep in consideration when developing a “standard” for emergency planning for municipal or local jurisdictions

(p. 159-161). However, Alexander acknowledges that is difficult to develop standards when the characteristics of jurisdictions vary and there isn't always an expert in emergency management that jurisdictions can utilize to develop good plans.

In terms of residential facilities, emergency planning is only one part of the services provided to the clients residing at these institutions. Generally, state agencies have assigned guidelines for long term care facilities to follow, which include criteria for each facility's written plan and activities to conduct in order to prepare staff for the possibility of an emergency. These guidelines usually are limited to preparedness activities, which consist of "planning, establishing resources, developing warning systems, skills in training and practicing, and almost any pre-disaster action which is assumed to improve the safety or effectiveness of disaster response" (Gillespie and Streeter, 1987, p. 157). Quarantelli (1998) reiterates this by stating, "Preparedness planning involves all of those activities, practices, interactions, and relationships, which over the short and long term are intended to improve the response pattern at times of disaster impact" (p. 2). With this view, it is important to satisfy not only the guidelines of what is required of a written emergency plan, but also the process in which activities are conducted in the case of a hazard.

According to Gerber and Robinson (2008), there are three ways to evaluate performance in emergency management: self-evaluation of stakeholders, analysis of documents related to disaster preparedness, and a focus on actual preparatory behavior. While each methodology paints a picture of one part of the planning process, they also have limitations in their scope. Using methods that allow self-evaluation of stakeholders can create biases due to some organizations' reluctance to admit that they are unprepared, or a lack of knowledge about what preparedness activities entail. Document analysis may be a "question of whether the documents

reflect real preparative activities or capabilities” (p. 350), and surveys focusing on actual preparatory behavior may be “quite specific and fail to account for the diversity of preparedness activities” (p. 351). In order to counteract these pitfalls associated with each performance evaluation method, it is recommended that a combination of these tactics be used.

CHAPTER 4

METHODOLOGY

Sample

In order to answer the research questions, the emergency plans of residential facilities in four different states were analyzed. This serves as a comparison to determine similarities that other states can draw when planning for their own facilities, while highlighting the nuances of how planning can differ by region due to the relevance of certain catastrophic events in one area or another. These states were selected also for their variation in institutional rates. Washington and Colorado utilize state run institutions much less than South Carolina and New Jersey (Braddock, Hemp, and Rizzolo, 2008). By comparing the jurisdiction in four different states, we can compare and contrast how residential facilities plan for this special population as part of their organizational duties.

Instrumentation

The study applies a two-pronged analysis. To answer the first research question, each center's emergency plan will be examined by categories based on best practices as defined by literature. A review of the literature will yield best practices that make up a good emergency plan. Because staff at residential facilities have their days full of rehabilitation activities with their clients, it is helpful to have a response plan that they can refer to in case of an emergency.

Preparedness Elements

The following components reflect the preparation needed in order to activate a plan in the face of a disaster on a residential facility level:

Disaster Exercises.

While training is a crucial element that gives staff the knowledge of how to put the response plan to use, it is not enough to test their capacity to respond to an emergency. In order to counteract this, facilities should conduct disaster exercises. These exercises could range from tabletop exercises, which are simple to conduct and are meant to evaluate coordination and organizational capacities in activating a response plan, to a functional or full-scale exercise, which is more realistic in simulating a high stress environment (Daines, 1991).

Emergency shelter arrangements.

Similar to mutual aid agreements, emergency shelter arrangements are needed to establish a place of alternative residence for clients that may have to evacuate their own residential facilities. It is crucial to know the needs of the clientele being served, and connect with local government or communities to meet those needs (The ADA and Emergency Shelters, 2007). Residential facilities should have arrangements with other facilities or locations (such as a school gym). These arrangements are a type of mutual aid agreement, and should outline procedures with respect to transfer of residents, medical information, etc. (Daines, 1991, p. 176).

Evacuation drills.

Given the nature of these residential facilities, it is difficult to gauge the learning curve of the residents at these facilities because of their intellectual difficulties. One way to prepare them for a hazard or disaster is to conduct evacuation drills. However, studies have found that residents have trouble transferring skills learned during daytime evacuations to nighttime (Shields et. al., 1999). At the minimum, facilities should conduct evacuation drills, but it is recommended that they also incorporate evacuation training into their client's programs to overcome learning difficulties.

Hazard identification and risk assessment.

In order to properly tailor response efforts, Perry and Lindell (2003) write that these efforts should be based on knowing which threats are most relevant to that particular program (p. 340). Because hazards can vary by location (Regional and vicinity of where the facility), assessment tools are important to determine what hazards are more probable than others to affect the particular facility. For the purposes of emergency planning in residential facilities, the most helpful tool would be the hazard identification tool, which consists of estimating the probability and impact of certain types of hazards (Deyle et al., 1998, as quoted in Henstra, 2010).

Interagency coordination.

Interagency coordination is related to mutual aid agreements (see below), but is specific to the informal or formal relationship that a residential facility has with local governmental entities such as the local emergency management agency in the region that they reside in, and their jurisdictional authority above them at the state level.

Mutual aid agreements.

The purpose of mutual aid agreements is to engage with other members within and outside of the community in case a facility's resources quickly become overwhelmed. These agreements can be with emergency medical services, transportation services, or private businesses. It is best to acquire formal agreements specifying when the facility can utilize services, establish a protocol, and agree on adequate compensation (Cohn, 2005, as quoted in Henstra, 2010).

Planning Committee.

In order to properly respond to an emergency, staff members of these facilities must be aware of the activities proposed and should thus be included when writing a plan (Perry 1991, as quoted in Henstra 2010). Because there are various departments that encompass a residential facility, the most effective planning committees constitute a mix of direct care staff and higher-level administrators. This ensures that the client needs are being met in the face of an emergency, while administrators can plan for business-like aspects, such as the amount of cash and disaster supplies on hand.

Resident Identification.

When faced with an evacuation, the developmentally disabled population is much more difficult to transport due to unawareness of their surroundings. Some residents are more competent than others, but if separated from their direct care providers, it may be difficult for others to identify them. Identification information should contain each resident's name, social security number, photograph, date of birth, current drug/prescriptions being taken, food allergies, and next of kin contact

information, and should be transported in such a way so that the resident can be identified easily (Missouri Department of Health and Senior Services, 2007).

Staff Training.

Without training, the response plan has no bearing on staff. Training within the facility should “be on the concepts of operation and key components of the [plan] that directly involve the group being trained, but an overview of the plan is also necessary to ensure that participants understand how they fit into the big picture” (Daines, 1991, p. 185). For those who are not involved with the planning committee, this is a way to invest and inform them in maintaining care for the residents, despite abnormal circumstances. The training should be required for all staff, with extra training (whether in the form of FEMA or state emergency management courses) designated for staff with leadership positions.

Response Elements

Elements associated with response include components that are immediately needed to react to a disaster (Waugh, 2000, as quoted in Principles of Emergency Management Supplement, 2007). Others refer to response as “actions taken a short period prior to, during, and after disaster impact to reduce casualties, damage, and disruption and to respond to the immediate needs of disaster victims” (Tierney, Lindell, and Perry, 2001, p. 5, as quoted in NCD, 2009). The following components are essential for an effective emergency response.

Communication systems.

Communication systems should be utilized to coordinate response during a hazard event (Missouri Department of Health and Senior Services, 2007). Not only can staff members use these to communicate with one another, but they are also helpful in contacting family members and local emergency response teams, along with activating mutual aid agreements. A list of fax lines, analog phones, walkie talkies, ham radios, etc. and instructions for how to use them should be in the plan.

Disaster supply storage.

Facilities should include enough food, water, clothing, bedding, and shelter for all the residents and staff, stored in a safe place. While each jurisdiction varies in its requirement, it is generally agreed upon that a minimum of 72 hours worth of supplies should be in the disaster supply shed, though 7-10 days worth is ideal (Missouri Department of Health and Senior Services, 2007).

Emergency Operations Center (EOC) Establishment.

An emergency operations center, or EOC, is a prearranged location from which local officials can coordinate and communicate with responders, other levels of government, and the public (Scanlon 1994, as quoted in Henstra, 2010). For residential facilities, this is intended as a meeting place if a hazard were to affect operations of the facility and enact the Incident Management System.

Employee responsibilities.

This element involves instructions and duties for staff members at the facility at the time of an emergency situation— both those specific to position and in general.

Evacuation plan.

Because of the special needs of developmentally disabled residents, it is difficult to decide whether or not an evacuation is necessary. Conducting an evacuation involves moving and transporting residents and staff to alternative shelter that may not possess the necessary items needed to sustain normal operations. Therefore, an evacuation plan “involves establishing criteria for deciding whether to evacuate residents, and determining how the evacuation will be executed” (Henstra, 2010, p. 240).

Incident Management System (ICS).

The Incident Management System is intended to designate “a clear chain of authority that can quickly orchestrate collaborative operations by diverse organizations that have had little or no previous operational relationships” (Christen et al. 2001, 1). This translates to assigning roles for who is in charge if a disaster were to happen at a residential facility.

Shelter-in-place.

The term “shelter-in-place” means “to take immediate shelter wherever you are” (CDC, 2007). This is an option typically used for when it is not safe to let outside air in, but is a very probable option for the residential facilities in all disaster settings, due to the difficulties associated with evacuation. This part of the plan would detail what situations would constitute staying in place at the facility and utilizing resources that currently exist on site.

Specific disaster directives.

This element involves the specific actions taken in certain kinds of disasters, since the actions taken during an earthquake and a hurricane are dissimilar.

Recovery Elements

The stage of recovery is defined as “putting a disaster-stricken community back together” (Mileti, 1999, as quoted in Phillips, 2007). For residential facilities, this means the “implementation of programs to restore or improve the quality of life...” (Rubin, 1991, p. 226). The following components are important for a residential facility to have in order to address the recovery process.

Continuity of Operations Plan.

In order to recover from a disaster, it is essential that communities have procedures. Continuity of operations procedures includes “identifying critical government functions and services and developing strategies to quickly restore them if they are interrupted in an emergency” (FEMA, 2004, as quoted in Henstra, 2010). For residential facilities, this course of action would ensure the same standards of care for the residents as if nothing had happened. Elements would include procedures for inspecting the facility for structural damage; seeking assistance for food, shelter, medical assistance, and supplies needed to care for the clients; and if needed, applying for loans or grants (Missouri Department of Health and Senior Services, 2007).

Funding.

In the aftermath of a disaster, there are typically procedures to get funding from jurisdictional entities for costs inflicted due to a disaster occurring. These funds

vary depending on how badly the region was affected. However, for major disasters, FEMA has several grant programs that states can apply for (FEMA, 2010).

Mitigation

While there are preventative strategies that can be utilized when preparing for a disaster, mitigation focuses on long-term measures for reducing or eliminating risk (Haddow et. al, 2003).

Mitigation Plan.

A mitigation plan should consist of “strategies [that] reduce the vulnerability of people and property to hazards” (Henstra, 2010). This usually consists of structural elements, such as reinforcing building codes and infrastructure to withstand natural disasters. However, these strategies can be non-structural, targeting community vulnerabilities (Godschalk and Brower, 1985, as quoted in Henstra, 2010).

Warning Systems.

Warning systems are intended to give people notification about an impending hazard, so they can take action in order to protect themselves (Sorenson, 2000). These consist of fire alarms and other types of alert systems that communicate emergencies and, if need be, enact the emergency response plan.

Data Analysis

Using these categories, facilities from the four selected states had their response plans analyzed. Particular attention was paid to how detailed the plans are with respect to the above components. The details within each category were coded

into subcategories using NVIVO, a qualitative data analysis software package, to look for common themes between facilities.

Because the response plan is only part of the picture, there are other elements that are essential to establishing best practices of emergency management in residential facilities. The second research question was answered by conducting three to four follow up interviews with staff members at selected facilities, based on the findings with the emergency plan content analysis. These interviews determined what best practices they have found to be helpful in emergency planning for this particular population, and probed for pitfalls that may have been encountered in the process.

Superintendents or directors were interviewed, and/or chose a staff member based on their knowledge of emergency planning. These interviews were conducted by phone, and were recorded for record-keeping purposes. The content in the interview will be examined and coded for common themes within the state itself, and overall. See Appendix A for the interview protocol.

CHAPTER 5

WASHINGTON

Washington State is located in the Pacific Northwest region of the United States, in the very left hand corner of the country. According to a hazard analysis conducted by the state emergency management division, Washington is most vulnerable to severe storms, floods, and earthquakes, in that order (Washington State, 2010). Most of the emergency management jurisdiction lies within the state military department. This clearly designates the powers of the governor, funding, and policy definitions in Chapter 38.52 in the Revised Code of Washington (RCW), which lists all of the permanent laws in effect. These policies trickle down and influence the policies that the Department of Social and Health Services of Washington (DSHS) designate for all of the organizational entities that they head, including the residential facilities that house the developmentally disabled.

Under the Washington Administrative Code, Titles 275-39-635, 275-39-640, and 275-39-645 dictate the emergency planning process, evacuation procedures, and fire protection rules for all institutions residing under DSHS. The statutory authority for these three titles is derived from the Administrative Responsibility – Regulations Clause, which designates the administrative powers and responsibilities of each institution residing under DSHS. It states:

The department of social and health services, division of developmental disabilities, shall bear all administrative responsibility for the effective and rapid implementation of this controlled program. The division shall promulgate regulations within sixty days after June

12, 1980. to provide minimum standards and qualifications for the following program elements:

- (1) Residential services;
- (2) Medical services;
- (3) Day program;
- (4) Facility requirements and accessibility for all buildings in which the program is to be conducted;
- (5) Staff qualifications;
- (6) Staff training;
- (7) Program evaluation; and
- (8) Protection of client's rights, confidentiality, and informed consent (Wash.. Rev. Code § 74-26-040).

This law gives implicit responsibility to DSHS to establish regulations for all institutions in terms of emergency planning. As of November 1, 2010, administrative policy for emergency management states that each DSHS location will develop a continuity of operations (COOP) plan based on elements as determined by FEMA requirements, and that DSHS will provide this template. There are also elements that detail the designation of a team in charge of emergency operations, registration of the GETS system (a government telephone communications services), training for staff members on emergency management protocols, and recommendations to build partnerships with other local emergency management agencies in each

location's region (Washington State Department of Social and Health Services, p. 5-7).

While the author has been made aware that there is a Comprehensive Emergency Plan for the DSHS, there was no directive that prompted the formation of this plan. This plan was last updated in 2007, and as of this writing, has not been made concurrent with the new administrative policies on emergency management issued in November 2010.

Plans

There were four out of a possible five facilities that were able to participate in the study. The results of how many themes were found in the three plans are located below:

Table 5.1 Number of themes in Washington plans

Plan Reference #	# of Themes from Codebook
133	19
199	16
145	9
184	9

A larger amount of variation between the number of themes used in Plan 133 and 199 exists in comparison to between Plans 145 and 184. This may have to do with the lack of clarity in what is to be included in a facility's emergency plan, despite DSHS's policy that there is a template to be followed when writing such a plan.

In the entirety of the Washington sample, it is also shown that the three elements heaviest in volume of text are:

Table 5.2 Top three prevalent themes in Washington plans

Prevalent Themes	Total % in WA Sample
Specific Disaster Directives	50%
Employee responsibilities	17%
Plan writing	7%
Other Elements	26%

The highest volume of text in the four plans in the sample comprised "Specific Disaster Directives," which made up half of the sample. This suggests that Washington state facilities are very focused on instructing their employees on the nuances between responding to different types of disasters.

We will now examine each plan separately to look at the themes that were included.

Plan 133

There were a total of nineteen themes used in Plan 133. The top three themes used are outlined in the table below:

Table 5.3 Top three prevalent themes in Plan 133

Themes	Total % in Plan 133
Specific disaster directives	34%
Employee responsibilities	22%
Plan writing	12%
Other	32%

Plan 133 was split almost exactly into thirds. ‘Specific disaster directives’ had the most volume in the whole of the emergency plan. Employee responsibilities and plan writing made up another 1/3. The rest of the sixteen themes used in the plan made up the last 1/3 of the plan.

This plan is by far the most detailed and lengthy of the sample, which may account for why the three most prevalent themes in this plan were reflected in the examination of all of the Washington state plans. It also was the only one out of the plans collected from all four states that contained directives for disaster mitigation activities. Lastly, it also touched on issues of interagency coordination heavily, citing specifically what the state’s emergency response guidelines were and how they related to the facility itself – something that the other plans did not touch on.

Plan 199

There were a total of sixteen themes used for Plan 199. The top three themes for the plan are outlined in the table below:

Table 5.4 Top three prevalent themes in Plan 199

Themes	Total % in Plan 133
Specific disaster directives	40%
Employee responsibilities	15%
EOC Establishment	9%
Other	36%

The theme of “specific disaster directives” takes up almost half of the plan. This is followed by “employee responsibilities” and “EOC establishment.” The remaining thirteen themes are scattered throughout the remaining 1/3 of the plan. This distribution is similar to Plan 133, but is significant because its third most prevalent theme involves text that established an emergency operations center.

Plan 145

There were a total of nine themes used for Plan 145. The top three themes for plan are outlined below:

Table 5.5 Top three prevalent themes in Plan 145

Themes	Total % in Plan 145
Specific disaster directives	53%
Employee responsibilities	21%
Disaster supply storage	9%
Other	17%

In Plan 145, the themes of “specific disaster directives” and “employee responsibilities” are also in the top three more prevalent themes. The third most prevalent theme in this plan is “disaster supply storage,” which implies that this facility understands the importance of having details about necessary supplies for clients in case of a disaster or emergency. The last five themes are contained in a little less than 1/5 of the plan.

Plan 184

Like in Plan 145, there were also a total of nine themes used in Plan 184. The top three themes are as follows:

Table 5.6 Top three prevalent themes in Plan 184

Themes	Total % in Plan 184
Specific disaster directives	64%
Hazard identification	9%
Employee responsibilities	9%
Other	18%

Again, “specific disaster directives” takes the top spot, filling a little over 3/5 of the entire emergency response plan. This is followed by “hazard identification” and “employee responsibilities.” It is inferred that this plan is based mostly on knowing what hazards affect the facility itself, what to do during specific types of disasters, and setting rules and guidelines for what employees should be doing in this type of situation. The other five themes used are spread out in less than 1/5 of the entire emergency plan.

Interview

The facility that wrote Plan 133 was the one selected for an interview. The staff members talked to were the superintendent, who is in charge of all facility operations, and a director of nursing services, who supervises all medical care of the clients at the facility. The most major disasters that had occurred in the last two to three years were a sewer backup, a severe windstorm, and flooding that occurred within the community. The hazards that this particular facility was most prone to include severe weather related hazards and their aftereffects, along with earthquakes.

In terms of plan writing, there were a few factors that this facility had taken into account when deciding who would write the emergency plan. A preexisting safety committee led to the formation of a separate committee for emergency planning, combined with directives from the department about what facilities should be doing for disaster planning. People also opted in because of personal interest and community connections, due to long-term care disaster drills that had occurred within the community.

The references used for writing the plan involved those at the federal level (NIMS, ICS, FEMA planning manuals, coursework), an all-hazards planning guide issued from the department, and doing internet searches to see the resources of other local entities and organizations. The factors that were taken into account for the planning process involved physical geographical factors, the number of staff and their skills and abilities, an internal self-assessment of how well they were able to respond, financial issues regarding what money could be spent on preparedness, and possible organizations to partner with. The most important factors cited in emergency planning for this population were the actual individuals themselves and the resources that they believe they will have in a disaster setting– specifically because of staff changes throughout the day.

Themes

There are four themes that came up in the course of the interview with the facility that wrote Plan 133. They will be described below.

Intention does not lead to action.

Throughout the interview, both staff members showed considerable knowledge and commitment to the process behind emergency planning. However, they noted that their commitment level and knowledge of importance did not necessarily lead to the outcomes they desired. They cited time as a significant barrier to emergency planning due to their other organizational commitments:

- “I can speak to five or ten years ago, you would have not have seen that type of organizational commitment to emergency planning as you do now...though I would not rate them as high on outcome because we’re not there. From a big

picture perspective, there is a structure and organization in place. and people that are doing their job...but we'd have to get to better outcomes in the field to rate them higher. Commitment is there for it: up the administrative chain, they get it."

- "We're chugging along. we get the basics out there, we get the new employees oriented to it. but it's a very basic orientation. It is not as specific as it could be...we're not as intense about doing as those drills as we could be. We check on people more randomly and intermittently and if we did more. we'd be better."

"We meet the requirements. but I think the difference is that we all know we could do better. We have more information than what other people have. and we have not been able to get to the point to impart that knowledge to everybody. We just haven't gotten there."

- "Well we have the plan started. Not completed. We have had drills and have realized where we're light and not. And it's in our mind all of the time...even though we may not be getting everything done immediately. we are putting information in when we've noticed that something could be done differently after the committee has thought about it."

Variations in Staff Commitment.

Another theme that continually came up throughout the interview was that there were variations in the level of commitment within the facility's staff. Both staff discussed that the majority of staff were not prepared nor committed to being prepared:

- “We’ve heard that staff said, ‘No, we won’t be here. I’m going home.’ And they say that in an emergency, 50% of your staff will leave or never come in. And we saw that even in this last winter. We have terrible iced streets and it shut down the town for 24 hours...and yet there were not people coming in. In a true emergency, if it got hectic, we wouldn’t be able to implement a good evacuation.”
- “[One of our barriers is] do we have enough staff on hand to keep the residents safe? It has been pointed out by staff that if [the superintendent] said we had to stay, it doesn’t matter. They would leave and abandon.”

“When we practice [disaster drills], it’s a problem for us. [When we have done them], unfortunately I don’t think it has been taken that seriously by staff...it does not seem to click.”

“When something happens, like a tabletop drill they’ll come to that, but in a long term sort of thing, once they walk out the door it’s like ‘Okay, one with that.’ It’s short-sighted.”

Lack of Direction.

Staff members expressed confusion regarding exactly what should be included in the emergency plan. Despite the facility having a safety officer designated for this role, there are variations in peoples’ expertise. Staff emphasized the need for more guidance from the department and federal government:

“I don’t know how many Internet searches I’ve done [to find resources to write the emergency plan]...we also turned to the county emergency

preparedness office and local health department for what resources they had available. [But] there is very little for developmental disabilities.”

“I attended a week class that was sponsored by FEMA and came back realizing that while FEMA is supposed to be all-knowing, they were not knowing about people with intellectual disabilities.”

“[The department] could give us a better template that’s more functional and practical; whether that be a template that’s simpler than the one that we have, or guidelines, or an example. Any of those things would be helpful.”

Lack of Organizations Wanting to Help and/or Partner.

Lastly, staff explained that when the facility reached out to the local governmental agencies, they were not offered assistance or help. Rather, they were confronted by those local agencies to provide emergency shelter in case they were in need of assistance during an emergency:

- “The local health department did come and look at our facility, but the main reason they were there was not how they would implement help for us, but what they could do if they had people from homes on ventilators and things like that; that they could come in and have staff take care of them.”
- “I’m glad we’ve built [community partnerships], because [it was good to get] guidance from them saying, ‘You guys are silly if you think you can depend on us to come; we’ve got people living on oxygen and they’re going to die, we’re going to them before we come to you guys, you figure it out,’ so it was a good thing we made those partnerships.”

Analysis

Looking at all of the plans, it is clear that there is inconsistency within the number of themes in each emergency plan. This could be attributed to the fact that Washington lacks a template for long-term care facilities to utilize when emergency planning. While the interview revealed that there were an all hazards planning guide manual issued post-Hurricane Katrina, it was not as functional as the facility interviewed would have liked it to be. These factors could be explained by the lack of policy structure that the department possesses in terms of emergency planning.

Taking all of themes from the interview into account, it seems that the findings from the plan analysis align with interview data. This facility wants to be compliant and prepared for the health and safety of their clients, but do not have the partnerships they desire, the proper guidance from their department, a committed staff, or the time and resources to emergency plan. It is obvious that there is a finite amount of human and capital resource that this facility possesses. Combined with a lack of information and support from other governmental agencies, they do not feel as if they have the tools necessary to effectively emergency plan for their clients.

CHAPTER 6

COLORADO

Colorado is located in the Western region of the United States. According to a recent draft of the Colorado State Mitigation Plan, governor declarations from 1980-2010 came for a variety of hazards, including grasshopper infestation, drought, wildfires, tornadoes, rock falls, floods, sinkholes, mudslides, and blizzards (State of Colorado, p. 5). The state's emergency operations plan lists in the following order the most common natural hazards: floods, tornados, and wildfires (State of Colorado, pg. 13).

There are two agencies that have jurisdiction at the regional centers for the developmentally disabled. The first is the Department of Human Services, which is in charge of ensuring the safety and wellbeing of its clients. In the Code of Colorado Regulations, 2 CCR 503-1 16.000 is focused on Developmentally Disabled Services. However, the only recognition of emergency procedures concerns the use of restrictive constraints for clients to reinforce their safety, which is in Section 16.540 titled Requirements for Emergency and Safety Control Procedures.

The other agency that is in charge of emergency planning for these regional centers is the Department of Public Health and Environment (CDPHE). Since these regional centers are classified as Intermediate Care Facilities for the Mentally Retarded (ICF/MR), they are classified as a health facility under the guidelines of the federal government. 6 CCR 1011-1-8-8 deals explicitly with Emergency Services, saying:

8.1 EMERGENCY CARE POLICIES. Statements of policies for the care of residents in an emergency shall be developed and incorporated into a manual for staff use. See Section 2.3, 3.1, and 3.7. The manual should include but not be limited to: 1) Arrangements for the necessary medical care when a resident's physician is not available immediately; 2) Procedures and training programs which cover immediate care of the resident; 3) Persons to be notified.

8.2 FIRE AND INTERNAL DISASTER PLAN. Written policies and procedures shall be formulated for the protection of persons within the building in case of fire, explosion, or other emergency in the building, and shall consist of the following:

8.2.1 Brief, written instructions to be posted at appropriate places, of persons to be notified, and other immediate steps to be taken before the fire department or other assistance arrives.

8.2.2 A schematic plan of the building, or portions thereof, to be posted at appropriate places showing evacuation routes, smoke stop and fire doors, exit doors, and the location of fire extinguishers and fire alarm pull boxes.

8.2.3 Other policies and procedures that need not be posted but -must include: procedures for evacuating helpless residents, assignment of specific tasks and responsibilities to the personnel of each shift, provision for at least annual training and instruction sessions to keep employees informed of their duties, and provision for conducting simulated fire drills at least three times annually.

The above policies, procedures, and plan must be developed with the assistance of qualified fire and safety experts.

8.3 MASS CASUALTY PROGRAM. Each facility for persons with developmental disabilities should develop a written mass casualty plan for the management of residents and the treatment and disposition of casualties in the event of an external or community disaster. This program should be developed in cooperation with other health facilities of the area and with official and non-official agencies concerned (p. 8-9).

In addition to having a policy that clearly outlines what is expected of each facility in regard to emergency planning, there are many documents located on the department's website that guide facilities in what they need to put into their written plans and policies.¹

Plans

There are a total of three facilities in Colorado, and all three were willing to participate by allowing access to their emergency plan. The results of how many themes were used from the codebook in each plan are below:

¹ The templates can be found at <http://www.cdphe.state.co.us/hf/emergencyplanning/alr/ToolKit/index.html>.

Table 6.1 Number of themes in Colorado plans

Plan Reference #	# of Themes from Codebook
835	14
842	9
862	7

In comparison to Washington, Colorado's policies are much more explicit in stating what a facility's emergency plan should consist of. However, out of the three facilities, there is still a wide variation in how many themes were found within the plans. Within the Colorado set, these three themes were the most prevalent:

Table 6.2 Top three prevalent themes in Colorado plans

Prevalent themes	% in CO Sample
Specific Disaster Directives	49%
Evacuation Plan	16%
Continuity of Operations Plan	7%
Other	28%

Like Washington, “specific disaster directives” is the most voluminous in text within this set. However, the second and third most prevalent themes are “evacuation plan” and “continuity of operations plan.” which suggests that the Colorado facilities place importance on teaching staff how to get their clients out of the facility and how to continue providing care to them in abnormal circumstances like a disaster.

Plan 835

Plan 835 contains fourteen of the twenty-three themes in the codebook. The top three themes used in this plan are in the table below:

Table 6.3 Top three prevalent themes in Plan 835

Themes	% in Plan
Specific Disaster Directives	34%
Continuity of operations	22%
Plan writing	13%
Other	31%

This facility has “specific disaster directives” consisting 1/3 of the actual plan, “continuity of operations” and “plan writing” for another 1/3, and the other eleven themes in the last 1/3 of the plan. This plan is the most detailed of the three in the Colorado set, and focuses mostly on informing staff of what to do during specific

types of emergencies and making sure that care and normal activities pertaining to the residents can continue to be carried out, regardless of an emergency situation.

Plan 842

For Plan 842, there were nine themes found in the plan. The table below shows the three themes that were most prevalent:

Table 6.4 Top three prevalent themes in Plan 842

Themes	% in Plan
Specific Disaster Directives	48%
Evacuation Plan	25%
Staff training	6%
Other	21%

It can be seen that “specific disaster directives” takes up almost half of the emergency plan, and that “evacuation plan” takes up a quarter of it. The last quarter of the plan consists of staff training and the other six themes. This particular plan shows that the facility is concerned with giving information about how to react in different disaster situations and the procedures for when to leave the facility if necessary. Staff training is also a component that is important to this facility.

Plan 862

Plan 862 contained a total of seven themes. The top three themes are in the table below:

Table 6.5 Top three prevalent themes for Plan 862

Themes	% in Plan
Specific Disaster Directives	65%
Evacuation Plan	16%
Staff training	6%
Other	13%

Plan 862 is very similar to Plan 842, with the same top three themes in the plans, but in slightly different proportions. “Specific disaster directives” consists of 2/3 of the plan, with “evacuation plan,” “staff training”, and the other four themes making up the rest of the plan. Like Plan 842, this plan is concerned with the different nuances between the disasters and how it’s important to distinguish how to react to them. However, it contains the least amount of themes in the Colorado set.

Interview

The facility that wrote Plan 835 was selected for an interview. The staff members interviewed was the director, who is in charge of campus operations, and a service and support coordinator, who is in charge of managing three group homes that are part of the regional center and works on issues that clients may have. The last

major emergency that the facility encountered in the previous two to three years was a snowstorm, but this was not significant because power was restored within a few hours. Staff did not recall a major community emergency in the last two to three years. The hazards that this particular facility is most prone to include flooding and chemical spills due to their proximity to a railroad track.

The state department of health required the facility write an emergency plan that met certain requirements. Each facility had to fill out and turn in specific documents. The service and support coordinator was the main writer and facilitator of the emergency handbooks, and received input from the management team. The references used in writing the plan were mainly the templates provided by the state health department, along with work through the county health department.

Themes

There were three themes that were gathered from the interview of this facility:

Rigorous state regulation.

One of the themes that emerged during the interview was the extent of the state regulations that housed emergency planning. Earlier, it was discussed that the Colorado Department of Health had issued very clear guidelines on what was to be expected in all long-term care settings, and issued templates to be used to assist in that process. This facility reiterated this finding:

“The Colorado Department of Health issued even more stringent requirement and review of all emergency plans. There was a self-assessment that we had to complete, which identified liabilities, response, and assets. Regulation also

mandated online FEMA training of all management team and middle managers.”

- Emergency plans cover regulation required emergencies...everything from bomb threats to flooding to severe weather...the contents of the plan are now mandated by regulation, that you have to have some sort of mention or nod, even if it might be low risk for our site.”

Limited staffing and resources.

Staff also expressed frustrations with time and resources not aligning with the expectations and mandates issued by the state. These issues were various, from not having enough staff to assist on meeting those emergency planning guidelines to not having enough money to stock supplies for certain types of hazards:

“Some agencies identify safety related or emergency management positions as a fluff position...but it’s enough work that you almost need a position dedicated to it...I rely on people doing safety things on the side. It takes away from their primary job, so it’s hard to get them to swim in the information and be on top of everything. These are the type of positions that are the first to go and I’m getting strong consideration to recreate the safety/emergency response position...though the difficult decision in doing that would be getting rid of a direct care position.”

- “I can get the time to get the regulations completed, but searching for information to keep abreast of it...I haven’t been able to time to do it. I’m doing what I can, but not as efficiently as I should.”

“We do tabletop training very well, regulations and best practices require that you do a live drill. Easier said than done, part of it is the scope and having the resources to pull that off for every living site... It takes someone to script the whole thing, schedule to some extent.”

- “Preparing for pandemic...we don’t have the money to stock those supplies. It’s not possible, we’ve done the calculations and what they recommend for best practices and what we can afford is miles away. Then you have to worry about keeping them current and well stocked.”

Reactive policymaking.

The last theme that emerged was related to the staff members’ reliance on the state initiative to prepare for H1N1 last year. Both staff members discussed the directive from the governor, and the activities that resulted after that, including having a consultant come in to help them prepare for a pandemic. However, they have reiterated that once the threat died down, the department has not discussed it since.

- “[The department] never talk about the emergency response until it becomes some sort of mandate from higher above, like pandemic. And then suddenly they’re rushing in saying, “You need to do this, you need to do that,” not even considering what you have as a base. And then when that goes away, they don’t talk about it anymore...but now that pandemic has diminished, there is no mention or review in emergency response.”

Analysis

For the Colorado facility plans overall, it seems that giving information on what to do during specific disasters seemed the most important, though the proportions in each plan varied greatly ranging from 1/3 to 2/3. Also interesting was the clear distinction between the plans. Plan 835 had the greatest amount of themes in their emergency plan, but focused more on “continuity of operations” and the policies surrounding the writing of plan. This contrasts with Plan 842 and 862, which have a secondary focus on evacuation planning and staff training. These plans also have considerably less themes than Plan 835. While the regulation is in place in order for all of these facilities to succeed in planning, there is something preventing them from doing so.

With these three themes analyzed, it is obvious that for this particular facility, they manage to meet all of the regulations required by the mandates, but still struggle because of the limited time, staff, and resources on hand. Because this facility possesses a plan that contains the most themes that should be in a complete emergency plan, it is safe to assume that the remaining facilities also face the same struggles with meeting these mandates. From the information gathered in the interview, the structure and readily available information for facilities exists, but the time necessary to comply with the standards is absent.

CHAPTER 7

SOUTH CAROLINA

South Carolina is located in the Deep South, on the coast of the Atlantic Ocean. Its location makes the state particularly susceptible to hurricanes, followed by thunderstorms and tornados (DDSN, pg. 7). The facilities that house the developmentally disabled are under the jurisdiction of the Department of Disabilities and Special Needs (DDSN). This department has also set up directives for disaster planning for their regional centers housing people with disabilities or special needs. In 100-25-DD, procedures are described as to how the department would react in an emergency, who would be in charge, important contacts for resources and shelter, and the elements in a disaster plan that every regional center or entity should include. This document also provides directives in the case of a hurricane or a pandemic flu. This is one of the states where the department has taken great care in ensuring that their facilities are prepared for a disaster.

Not only has the department that manages the facilities created directives in order to provide guidance, but the Department of Health and Environmental Control has also set up licensing standards for all facilities housing mentally retarded persons. An order in the standards makes it a requirement to have three things in the emergency evacuation plan: a sheltering plan to house residents in an alternate location, a transportation plan to move residents when necessary, and a staffing plan to accommodate the residents in case of an emergency (South Carolina Department of Health and Environmental Control, 2004). The document then asserts that each facility is required to finish their emergency plan by June 1st and submit it to the department for approval.

Plans

Because most of the plans for the five facilities were not easily accessible by electronic format, a total of one plan was collected; however, this plan is interesting because the facility in question is separated into two entities in different cities. Thus, all of the hazards and vulnerabilities relevant to at least one of the facilities were incorporated into the plan. The number of themes found in the emergency plan is below:

Table 7.1 Number of themes in South Carolina sample

Plan Reference #	# of Themes from Codebook
333	14

Out of a possible twenty-three themes, Plan 333 used fourteen themes, which is one of the higher numbers in the entirety of the sample. Because the policies clearly state what needs to be included, it may be that facilities are more likely to include more themes in their plans.

Within their themes, Plan 333's three most prevalent themes were:

Table 7.2 Top three prevalent themes in South Carolina sample

Themes	% in Sample
Employee responsibilities	35%
Specific disaster directives	29%
Disaster supply storage	9%
Other	27%

There is close to a 1:1 ratio between “employee responsibilities” and “specific disaster directives.” “Disaster supply storage” makes up the third most prevalent theme within the sample, but the other eleven themes are spread out to make up nearly 30% of the plan.

Interview

The interview with the facility in South Carolina was with the acting facility administrator, who heads all campus operations, and the quality assurance director/disaster preparedness coordinator, who is in charge of maintaining compliance with licensure standards with the Department of Health and Environmental Control. The quality assurance director was also the lead writer for the emergency plan. In terms of major emergencies in the last two to three years, a significant ice storm occurred last January that disrupted operations at the facility. The other emergency was the H1N1 outbreak, which involved a few isolated cases and was solved through quarantine.

The main writer of the emergency plan is the Quality Assurance Director, but input is received from all of the head people within the organizational body. The writers used resources from FEMA and DHS, local government emergency management agencies, other facilities in the area, and references from Internet searches. State meetings put on by the department that took place every June, right before hurricane season, were also referenced. Factors that were taken into account when writing the plan were client mobility and functioning levels, the environment where the facility was located, previous weather conditions, and access to services. Transportation and shelter limits in case of evacuation were the most important factors cited in the planning.

Themes

During the interview, three themes emerged most noticeably:

Experience is key.

Both staff members interviewed continually referred back to the facility and community emergencies that had occurred in the last two to three years. This indicates that their knowledge base is from what they've actually encountered themselves, and what major disasters the state as a whole has been through:

“[Hurricane mitigation has been] implemented based on past experiences. The big hurricane that hit South Carolina in 1989 was Hurricane Hugo. A lot of what's in our disaster plan today is knowledge gained from that hurricane...it prompted us to put things in disaster plans like tornados, loss of electricity, that sort of thing.”

“We’ve improved [communication] in the past few years, between us and other facilities, and within each other of the facilities to notify them if there is an emergency or if we’re having a drill...It’s one of the things that years ago when I was involved in hurricane evacuations, the problem was that communication goes down quickly and you’re left with nothing if you don’t have an alternate source as we do now.”

- “The key thing that I find helpful is having someone that’s been through an emergency. That has past experience. That seems the most beneficial in extracting useful information, life experiences, and scenarios because they always identify areas that you didn’t think of.”

Strong relationships with other facilities and the main office.

Another theme brought up in the interview was the continual reference back to the main department office, listing other facilities by name and the types of hazards that they face, as well as the partnerships that they have made within the community. This indicated that the facility – and all facilities within the state – maintained contact with each other in order to bounce off ideas and offer guidance. It also indicated that the facilities were being encouraged to discuss these issues with the state and their local FEMA office:

“We meet as a state organization in June, once a year, right before hurricane season, we meet as the entire state and discuss disaster preparedness, readiness, and all of the facilities similar to ours, and within the community as well. Just kind of a general review, any problems that have come up within the past few years, we discuss that. Gets everybody thinking about hurricane season, is the motivator behind it.

- “We also used the other facilities that we have a relationship with; to move people to their location or provide service to them should they run into an emergency. If a facility had a problem and we didn’t, we would accept them and make plans for them.”

“We attended the state-wide FEMA disaster preparedness meetings, which the FEMA representatives were there and reviewed our plans.”

“Any agency that serves vulnerable adults of any age is supposed to get prior evacuation notification so that we can get out ahead of the mass. so to speak...that’s what we’re told and that’s what we plan for.”

“We’ve also actual ability to communicate during a disaster. We implemented a radio system with HAMM radios: they can communicate with main office and other of the regional centers. along with private and state wide hospital networks.”

Easier to Stay Than Leave.

The last theme that came up throughout the interview was the procedures in place that designated when an evacuation was to happen or not. Staff discussed that for the specific population, it was much easier to remain in their facility rather than evacuate to an emergency shelter:

“Our structures are built pretty strong. so we’ve built into our plan that it has to reach a certain level of intensity before we’re actually going to leave. We’re better off hunkering down on-site than most people would be. Another facility would not consider leaving until a Category 3 storm is reached. They have

hurricane protection there to withstand anything below that. They won't leave until they get word it's going to be a big storm."

"If we ever have to start discussing moving our individuals, [transportation limitations] are the number one thing that pops up. How are we going to get them moved quickly and safely?"

- "We have emergency generators, increased food storage during hurricane season. We make those provisions because of that factor that in a lot of cases, we're a lot safer where we are than hitting the road and not having access to medical services, medications, and water."

Analysis

Because the sample size is so small for this state, it is unclear if South Carolina's licensing standards and directives for emergency planning have made a difference for the state facilities as a whole. However, the high number of themes used in this plan relative to the other plans discussed bodes well for this particular set of facilities.

From the information gathered in the interview, it is clear that South Carolina facilities have the resources and structure in place in order to plan adequately for emergencies. Combined with the licensing standards that require facilities to revise their plan every June and the state meetings before hurricane season, it is obvious that these facilities have resources that they can draw from should they need assistance in planning.

CHAPTER 9

NEW JERSEY

New Jersey is a state located in the Northeastern part of the United States, on the coast of the Atlantic Ocean. According to FEMA, the biggest hazard to the state is flooding, which can be caused by either hurricanes or severe weather storms (Federal Emergency Management Agency, 2004). The state's mitigation plan also cites flooding as one of the biggest natural hazards, followed by hurricanes and "nor'easters" (State of New Jersey, pg. 4).

New Jersey's regional centers that house the developmentally disabled are under the jurisdiction of the Department of Health and Senior Services. The directives for emergency planning in these regional centers are under the New Jersey Administrative Code. Title 8, Chapter 39, titled Standards for Licensure of Long-Term Care Facilities. Subchapter 31.6 is referred to as Mandatory Fire and Emergency Preparedness and outlines the type of staff training that should be conducted, how many drills to conduct a year, emergency and evacuation procedures, and what to consider when writing an emergency operations plan. It is also important to note that this statute was edited in 2007, and slated for renewal in 2012.

Plans

There are a total of seven facilities housing developmentally disabled individuals in New Jersey. Six of the seven facilities were able to provide plans in electronic format. The table below shows the breakdown of the number of themes used in the emergency plans collected:

Table 8.1 Number of themes in New Jersey sample

Plan Reference #	# of Themes from Codebook
698	16
602	14
636	12
674	10
616	9
683	3

The range of themes used in the plans varies greatly, from 9-16.

The three themes that were used most within the sample are in the table below:

Table 8.2 Top three prevalent themes in New Jersey sample

Themes	% in Sample
Specific disaster directives	35%
Employee responsibilities	24%
Evacuation Drills	5%
Other	36%

Again, “specific disaster directives” and “employee responsibilities” top the list as being the theme most discussed with the emergency plans, making up over half of the sample. “Evacuation drills” was the third most frequently used theme, but that was closely followed behind with other themes.

Now we will look at the characteristics of each plan, by theme.

Plan 698

Plan 698 had the most themes used, with a total of sixteen themes. The breakdown of which themes were used is in the table below:

Table 8.3 Top three prevalent themes in Plan 698

Themes	% in Sample
Employee responsibilities	23%
Disaster supply storage	17%
ICS/Evacuation plan	9%
Other	42%

“Employee responsibilities” makes up nearly a quarter of the plan, followed by “disaster supply storage,” “ICS,” and “evacuation plan.” These four themes make up a little more than half of the plan, with the remaining twelve themes making up the rest of the plan. The foci on this plan rely on informing staff of what their duties are and who to report to, what supplies they can utilize in case of an emergency, and how to leave the facility if need be.

Plan 602

Plan 602 had the second most themes with fourteen. The breakdown of themes used is in the table below:

Table 8.4 Top three prevalent themes in Plan 602

Themes	% in Sample
Employee responsibilities	49%
Specific disaster directives	12%
Disaster supply storage	9%
Other	30%

“Employee responsibilities” takes up nearly half of the plan. “Specific disaster directives,” “disaster supply storage,” and the remaining eleven themes make up the other half of the emergency plan. This plan is noteworthy because unlike the other plans discussed, this is the first where “employee responsibilities” heavily outweighs “specific disaster directives.” This shows that the facility is more focused on giving their staff instructions on what to do in a general context rather than what to do during a specific type of emergency.

Plan 636

Plan 636 has a total of twelve themes. The top three themes used are broken down in the table below:

Table 8.5 Top three prevalent themes in Plan 636

Themes	% in Sample
Specific disaster directives	57%
Employee responsibilities	19%
Funding	7%
Other	17%

“Specific disaster directives” takes up more than half of the overall plan, followed by “employee responsibilities,” and “funding.” The remaining 1/5 of the plan consists of the other nine themes used in the plan. This plan is different than the others because of the emphasis on how to get or access money before and after a disaster.

Plan 674

Plan 674 used a total of ten themes, and the top three used are in the table below:

Table 8.6 Top three prevalent themes in Plan 674

Themes	% in Sample
Specific disaster directives	53%
Employee responsibilities	10%
Evacuation plan	8%
Other	29%

“Specific disaster directives” takes up a little over half of the plan, followed by “employee responsibilities” and “evacuation plan.” The last seven themes are spread out in the remaining nearly 1/3 of the plan. This facility is very focused on response tactics, with a heavy emphasis on what to do in specific instances, a general explanation on what staff members should be doing in any emergency, and how to leave the building if necessary.

Plan 616

Plan 616 used a total of nine of themes, and the top three used are highlighted in the table below:

Table 8.7 Top three prevalent themes in Plan 616

Themes	% in Sample
Specific disaster directives	28%
Employee responsibilities	25%
Evacuation plan	17%
Other	30%

Like Plan 674 above, Plan 616 has the same top three themes used in their emergency plan – “specific disaster directives,” “employee responsibilities,” and “evacuation plan.” However, the ratios are far more equal than that of Plan 674. The top three themes are broken down into three quarters, while the remaining six themes make up the last quarter of the plan. While this plan doesn’t use as many themes as other plans in the state, it is clear that the facility has a fairly good grasp of the different elements of a successful emergency plan.

Plan 683

Plan 683 had a minuscule total of three themes used; and those are broken down in the table below:

Table 8.8 Top three prevalent themes in Plan 683

Themes	% in Sample
Specific disaster directives	58%
Resident identification	20%
Employee responsibilities	19%
Other	3%

Like Plan 674 above, Plan 683 has “specific disaster directives” for over half of the document. However, the broad emphasis on “resident identification” themes is equally interesting, which take up 1/5 of the entire plan. This is followed up by “employee responsibilities,” which also takes up 1/5 of the plan. While this facility has a heavy emphasis on instructing staff what to do in specific instances of an emergency, there is also emphasis on how to keep track of the clients and their medical records if an evacuation were to happen.

Interview

The staff member that interviewed was from the facility that wrote Plan 616, and is the CEO. The last disaster at this facility was severe weather related: back-to-back blizzards resulted in 40 inches in snow. The facility is most prone to severe weather, hurricanes, and severe nor'easters. They are also classified as a soft target for homeland security, because of the large population of people in a concentrated area.

In terms of preparation in writing, the CEO decided which of his staff members would participate and went to a conference in Texas that offered the ICS courses. They used those outlines, the New Jersey emergency management system, and research on Hurricane Katrina in order to guide them. The factor that was most taken into account was traffic flow because of the region's focus on tourism. The most important factor that was cited in planning for this particular population was grasping an understanding of the potential and being able to react to the specific situation.

Themes

There were a total of three themes found in the interview.

Survival and Instinct.

One of the themes that emerged from this interview was that of survival and instinct. The CEO allowed for more of a focus on how to act in the moment of an emergency rather than having a specific emergency plan. The CEO believes that it has worked for their facility because it allows them to think on their feet, without an over-reliance on their department.

“When stuff has gone down, I’ve been the only one here. I don’t get folks coming down from central office level immediately. They come down after the fact.”

“Having understanding of the potential...these plans, I don’t care what plans you have; if you just have an outline or guideline to follow, it’s probably a better approach than to have it spelled out in specificity or identifying individuals that do certain tasks. When the emergency happens, at that point

are what resources you have, what the issues are, what the variables will be...and then you put yourself forward. Bottom line is, we look at these plans as exercises as to identify the possibilities, not something we have to follow chapter and verse."

- "We're still here, we're still certified, and we're still moving forward. We have faced some incredible stuff in the past for years so our plans are pretty successful."

Political issues.

The second theme that emerged dealt mainly with the politics involved with other authorities making decisions on what action to take when a major community emergency takes place. There were also issues of people making decisions who are not necessarily well versed or familiar with the population at hand, which impedes the implementation of the emergency plan.

"It's frustrating because certain things come up and give us a nod to step up to take this, or ask us to open up a building and nothing happened. When it comes down to it, it was a politician that made the call...it's frustrating over having that relationship, but if stuff hits the fan, I'd have enough support from the county and state to manage this facility."

"You run into scenarios at things are being done best at the time at you're doing it, versus worrying about what they'll say or what they have to say. Some of the folks in the state believe a full evacuation of this facility can be done. You actually work at this facility; you realize that a full evacuation is next to impossible without jeopardizing the lives of a few hundred people.

- “You’re in a situation here...by the time it’s hitting Virginia, it’s 48 hours out from landfall with us. 48 hours isn’t a whole lot of time to get out of the county. So you wait for politicians to make the call whether or not they’re going to go or not. So we’re all in a holding pattern...waiting on them to decide about how much it’s going to cost and the loss because the tourism season will be shot. It’s a mentality...it’s that atmosphere that is a deficiency in making these plans go off without a hitch.

Resource power and lack thereof.

The last theme that emerged was the concept of resource power. While the facility is very willing to work with the local county emergency management agencies to provide their buildings as a resource, there is an increasing need for more resources – in the form of money or equipment – to be more “successful” in preparing for disasters.

- “We have said all along that we would be a resource to the community. We proved that last year during our blizzard when we were able to take 150 people for a weekend and give them a place to live and reestablish themselves. That was part of our plan, and we got the opportunity to implement.”
- “Funding, federal funding, equipment, dollars and sense. We operate on a shoestring, because of state budget issues. We’d like to have some better, newer equipment, but we don’t have it so we deal with what we have.
- “More resource to develop redundancies in equipment. It’d be nice to have emergency generators that you could depend on that weren’t 35-40 years old. And that the switch is there not hit a switch and cross your

fingers...mechanical areas that would allow us to be truly self sufficient for an extended period of time.

“We face challenges all the time and when the budget gets tighter...this is one of the easier places to take a look at and cut back X amount of dollars and how to do what I’ve always been doing with less.”

Analysis

Based on the plans alone, it is difficult to tell what problems and barriers exist in emergency planning for this particular population. However, due to the wide variation in themes in the emergency plans collected, it is clear that there are some gaps in knowledge between facilities. The six facilities are nearly split down the middle between “specific disaster directives” and “employee responsibilities” constituting the most volume within their emergency plans.

According to the interview, this particular facility felt it necessary to not rely so heavily on the use of an emergency plan, but rather to train the staff to be more instinctive about what they would do in a disaster situation. However, the barriers that were encountered mainly dealt with the lack of resources in terms of equipment and funding in order to be self-sufficient in an emergency, and the political nature of decision making that happens within the state.

CHAPTER 9

OVERALL FINDINGS

Overall Findings from All Emergency Plans

Number of Themes in Content

The collection of the emergency plans was restricted by which facility was able to provide an electronic copy of their plan. As a result, there were a total of fourteen facilities out of the four states that were able to participate. After data coding and analysis, the number of plans that each code was represented in is in the table below:

Table 9.1 Rank of most prevalent themes in entire sample

Label	# of Plans Mentioned In
Specific Disaster Directives	14
Plan writing	12
Employee Responsibilities	
Incident Command System	11
Evacuation Plan	
Disaster Storage Supply	

Table 9.1 Cont.

Warning Systems	
Communication Systems	10
Staff Training	9
EOC Establishment	7
Interagency coordination	
Planning Committee	6
Mutual Aid Agreements	
Emergency Shelter Arrangements	
Hazard identification and risk assessment	5
Evacuation Drills	4
Shelter-in-place	3
Funding	
Continuity of operations plan	
Disaster Exercises	2
Mitigation activities	

The table shows that text detailing what to do during specific disasters (denoted in the code “specific disaster directives”) was the most prevalent to include in this sample of emergency plans. This was included in nearly all of the emergency plans, save for one facility. The next most prevalent theme was “employee responsibilities,” and “plan writing.” The least prevalent themes in the sample were “mitigation activities,” and “disaster exercises.”

In examination of the plans, it is obvious that there are inconsistent themes throughout each state. Washington, Colorado, and New Jersey all faced significant problems in inconsistency of their emergency plans, with the number of themes ranging from 3-19. While this can account for certain elements of emergency planning (such as resident identification) being in separate non-emergency management related documents, it would be helpful if each facility considered all the possibilities and obstacles faced and integrate those issues all into one document. South Carolina’s sample was too small to make conclusions about whether the policy structure is working for the success of their emergency plan writing.

Emphasis on Employee/Disaster Directives

The themes that were most prevalent in all of the states were “specific disaster directives” and “employee responsibilities.” These types of directives give the reader a checklist or list of criteria regarding what to do in an emergency – whether that be related to the specific disaster faced at hand or the organizational position of that person. This shows an emphasis on using the emergency response plan like a training

manual. It's not necessarily a document that outlines policies and procedures, but more a document that staff can utilize in the heat of the moment.

Because "specific disaster directives" has such prominence on the entire sample of emergency plans as a whole, the type of disaster that was most discussed in the plans is analyzed in the table below.

Table 9.2 Top three prevalent disasters cited in entire sample

Top Three Disasters/Hazards	% in Disaster Directive Code
Disease, Infection Control, and Pandemic	27%
Fire	23%
Security	15%

Prevention tactics and response directives associated with disease, infection control, and pandemic were the most mentioned within the "specific disaster directives" code. Followed by this were issues of pandemic, disease outbreak, and infection control. The third most prevalent type of disaster that was discussed in the plans were security threats, which consisted of issues such as workplace violence/lockdown, war, bomb threats, terrorism, and general homeland security. These top three disasters' high percentages can be accounted for due to the fact that these disasters are common to all facilities, which explain their prevalence within all of the plans.

Overall Interview Findings

When examining the interviews conducted as a whole, it was very clear that the government performance framework was at work. The components of the government performance framework were reiterated as being most important to a facility's emergency plan and included: leadership, management systems, integration and allocation, and results focus. It was very evident that all leadership personnel were committed to the quality of their emergency planning, but were stopped in some way due to issues of resources – in which staffing, equipment, and financial burdens were cited as barriers to being more successful in emergency planning. This finding is linked to the integration and allocation element, where leadership, resources, and information all work together to execute the organization's goal or vision (Ingraham et al. 2003). The facilities interviewed have made it clear that their goal for being prepared for emergencies is not being reached due to a shortfall in resources.

Other similarities between the facilities interviewed included an awareness of the risks posed to them. All facilities were able to name off the disasters that they are most prone to, along with the risks that they face due to their proximity to certain hazards within their communities. There was also a strong attachment to the specific needs of their clients: Colorado cited that they tailor their emergency plan manuals to the individuals living at each house/site, while South Carolina and Washington discussed the integration of their clients into the fire/disaster drills. New Jersey did not emphasize this as much.

Finally, when asked about training, all facilities discussed the need for doing drills – both the requisite fire drills once a month and disaster drills, ranging from a tabletop drill to a full-scale drill. Other versions of drills that were used were silent drills (where staff members are tested on paper) and emergency generator drills (where the facility runs on generator power to test their function without utility

power). All facilities understood the importance of scripting different emergency scenarios every year to keep their employees trained and thinking about the possibility of a disaster.

Overall, the interviews with facilities allowed for the understanding of how the policy structure of each state impacts the emergency planning process. The emergency plans were notable in that they showed the inconsistencies in training and information across the board, but the interviews were what helped to illustrate how the state has or hasn't taken an initiative on emergency planning, and how it has affected the facility's attempts to be prepared for an emergency.

CHAPTER 10

CONCLUSION

Given what the literature and data present, efforts to meet the needs of disabled populations in disasters have been too reactive and top-down in nature. The majority of the federal legislative policies that affect disabled populations are due to major disasters occurring. While these efforts are promising for disabled populations that live independently, they do not explicitly effect those disabled populations residing in long-term care settings. Grouping all types of disabilities under a blanket also hampers these efforts, an act that fails to comprehend the nuances between distinctive disabilities. Someone with a physical disability has different impairments than someone who has a cognitive disability, and the literature has only recently begun to reflect this difference.

This research sought to compare how institutions housing the developmentally disabled pursued emergency planning in four different states. The comparative factors were the states' policies governing emergency planning guidelines for these institutions, the type of most relevant hazards, and their varying rates of institutionalization. These factors will be discussed to see if they had an effect on how well institutions implemented emergency planning activities.

Policy Structure

Because these facilities are often understaffed and short on finances, it is safe to assume that stringent regulations on emergency planning drive some institutions to be more compliant than others. When each state's policy structure was analyzed, it was evident that some states had more stringent requirements than others.

Washington and New Jersey had the least amount of regulation regarding emergency planning for these facilities, while Colorado and South Carolina had the most stringent regulations. However, the facility interviewed in Colorado struggled with finding time to emergency plan due to staff shortages. Thus, the success of emergency planning relied on staff members willing to take on extra work alongside their regular jobs at the facility. In contrast, the facility interviewed in South Carolina deemed itself to be successful in emergency planning, some of that success due in part to the entire department's devotion to it by conducting a meeting every year before hurricane season. This indicates that more stringent regulation of emergency planning guidelines does not necessarily guarantee the success of an institution's emergency planning activities.

Rate of Institutionalization

As earlier stated, Washington and Colorado were more deinstitutionalized than South Carolina and New Jersey (Braddock, Hemp, and Rizzolo, 2008). A reasonable hypothesis would be that states with higher institutionalization rates would be better attuned to the difficulties of emergency planning. However, the facilities in South Carolina and New Jersey differed greatly in implementation practices. Facilities interviewed in both states were responsible for 100+ clients, but the facility in New Jersey was not nearly as successful as the facility in South Carolina. One particular difference involved the need for facility coordination with their departments and state governmental entities in order to determine evacuation. In South Carolina, facilities housing the developmentally disabled, along with other "vulnerable" entities (hospitals, other long-term care facilities) are notified before the general public in order to give them time to evacuate first. In contrast, New Jersey facilities must wait on political authorities to make the decision on when to evacuate

the region. While this may differ by region, it is clear that higher rates of institutionalization do not necessarily correlate with better emergency planning and preparedness at these institutions.

Another interpretation suggests that the deinstitutionalization movement has made it more manageable for administrators to plan for emergencies because the facilities are significantly smaller. The facilities interviewed in Washington and Colorado featured significantly different models as Washington utilized smaller-scale institutional settings and Colorado utilized group-home models. However, both facilities cited significant obstacles that impeded their success in implementing their emergency plans. According to the states studied, it can be concluded that deinstitutionalization also does not determine whether an institution is successful at emergency planning.

Hazard Risk

Lastly, the hazard risks respective of each state's facilities were compared. When asked about the types of hazards that the facility was most prone to, Washington's facility cited severe weather and flooding; Colorado's facility cited flooding and chemical disasters; South Carolina's facility cited hurricanes and tornadoes; and New Jersey's facility cited severe weather, hurricanes, nor'easters, and homeland security threats. While data was not recorded on how severe and frequent these hazards occur in these specific regions, South Carolina's facility was very aware of the risks posed to them every hurricane season. This was shown by their efforts to stockpile disaster supplies every hurricane season, the yearly meetings in June with the entire department, and their buildings being able to withstand up to a Category 3 storm due to mitigation efforts. Though New Jersey's facility was not as

successful at emergency planning as South Carolina's. their recognition of the risks posed to their location if a large-scale hurricane or nor'easter were to occur is noted. This is shown through the CEO's concern with the difficulties of having to evacuate the facility if instructed to. In contrast, Colorado and Washington's facilities have been fairly hazard-free. In the case of these case studies, type of hazard and frequency of such hazard may have an impact on how well facilities prepare themselves and how much additional support in emergency planning is provided by the state.

Other Factors and Limitations

This research analyzes the emergency planning approach at institutions housing the developmentally disabled from the implementation perspective. This was to determine whether the latest federal directives on disabilities policy and emergency management have impacted whether state-run institutions are successful or not in implementing procedures for their residents. The data reflects that their information sources and directives to conduct this type of planning come predominantly from the state level and that each state has its own host of problems in implementing such planning. In addition to the budget cuts currently affecting state governments, it is difficult to prioritize emergency planning activities when a facility is not at risk for a large-scale disaster. Faced with the organizational responsibilities of providing care to their clients, these facilities understandably struggle with allocating time and resources for emergency planning.

This data is not without limitations, however. Because of the variation in content themes in the facility emergency plans, it is unclear whether plans with less thematic content are less successful than plans with more thematic content. The sampling methodology of the interview process prompted only one interview to

represent an entire state for the purposes of the case studies. More research is necessary in order for a broader understanding of how well other states emergency plan for their institutions housing the developmentally disabled. These shortcomings can be resolved by interviewing state-run institutions from other states to determine if a higher rate of hazard risk is the factor driving institutions to be more successful than others in emergency planning.

Policy Recommendations

The data collected tells us that a number of facilities are struggling to make time and allocate resources in order to emergency plan effectively. From the analysis of facility emergency plans, it was clear that there were inconsistencies over what information should be included in a “good” emergency plan. Beyond this, the bulk of the information about the successes and failures of emergency planning was revealed through the interview process. It has been noted above that the facility in South Carolina was most successful at implementing their emergency planning. However, there were important aspects from the other state facilities that helped them accomplish what they have in place. Therefore, the following are policy recommendations that could potentially improve the quality of emergency planning in these institutions.

Standardized Templates

Despite some states’ rigorous instruction in what should be included in a facility’s emergency plan (Colorado and South Carolina had the most rigorous standards for this), state facilities plans had wide variations in the types of content included. This is not characteristic of South Carolina’s facilities, due to lack of sample size. However, it can be concluded that facilities should have some sort of

commonality in the way their plans are structured. Though each facility will have different hazards that they are faced with, depending on the region they're located in, there should be a standardized template that facilities can utilize in order to ensure that institutions within the same state have similar looking emergency plans. Not only would this create ease of comprehension, but it would also aid in a facility's evacuation to another location, if need be. The same protocols would be followed and this would reduce confusion greatly.

Increased Departmental Support

Facilities in Colorado and Washington discussed various problems with their department's commitment to emergency planning. Washington's intentions did not necessarily lead to actions that prompted development of functional guidelines, while Colorado's regulations are rigorous enough to nearly override staff capacity and are reactive in nature. While this lack of departmental support may be driven by the paucity of hazard risk in those particular areas, it is important for the department to set a standard and encourage their facilities to succeed in emergency planning.

It is recommended that social service departments meet every year in order to discuss emergency planning, departments require reviews on their plans on an annual basis and provide feedback, and departments utilize consultants to educate administrators on the basics of emergency planning. Since these facilities are part of the larger state government structure, administrators should not be left to flounder when dealing with this issue. In the case of the South Carolina and Colorado facility data, there is a strong indication that facilities tend to be more successful at implementing emergency planning when they are doing it in conjunction with their department.

Emphasize and Prepare for Shelter in Place

During the interviews with the four facilities, it became very apparent that the biggest obstacles to emergency response would be implementing a full scale evacuation of the facility, due to issues like quality of health of the residents, lack of transportation, and the uncertainty of other alternate shelters. Other problems included the unwillingness of local emergency management agencies to aid the facility if a large-scale community wide emergency were to occur due to their responsibilities to vulnerable populations residing within the community.

Due to these problems, facilities indicated that they are much safer staying where they are. Therefore, each facility should be encouraged to make themselves self-sustaining in an emergency situation. This would start with mitigation of building structures in order to hold up to severe storms and earthquakes, stockpiling for food, water, and medication, and establishing procedures for when it is absolutely necessary to leave the facility. Efforts like this would increase the safety of the residents substantially in an emergency situation and take the burden of responsibility off of local and state emergency management agencies.

Personal and Household Preparedness Training

While all of the facilities interviewed utilized disaster drills on a variety of skills, this type of training is problematic because it often takes a substantial amount of resource power to get the facility to halt normal operations, plan the scenario, and gather enough staff to participate in the drill. One way to help prompt better training of employees in emergency preparedness is to encourage each staff member to prepare for their homes and workplaces.

In the interview with the facility in Washington, a staff member noted that she felt the reason that staff did not take disaster preparedness at their workplace seriously was due to their lack of taking household and personal preparedness seriously. By training and providing information to staff members to prepare for their families, they will be more likely to exercise those principles in the work place. These activities would include stockpiling food, water, and medication, and establishing plans for their children and pets if they weren't able to get home. This would help reduce the issue of staff shortages that the staff members from the Washington facility feared the most. By encouraging each employee to plan for their family and establish family contingency plans in case they need to stay at work, the possibility of not having enough staffing to care for the residents in an emergency situation will lessen.

Federal Grant Funding

While some states have issued recommendations about what types of equipment each facility should have in order to be prepared for a large-scale disaster, sometimes the regulations and finances of the facility do not align. This was prominent in the interview with the Colorado facility, who stated that the recommendations for pandemic planning were “miles away” from what could be afforded, and in the interview with the New Jersey facility, who was concerned with whether the thirty-five to forty year old emergency generator would turn on when needed.

Because most states are struggling financially and social services are often the first to be cut, facilities must figure out how to conduct the same level and quality of care to their clients with much less resource power. This, in turn, impacts general

provision of services as well as the resources needed to emergency plan effectively. While the federal government is struggling to provide the same amount of services to everyone, it is significantly less expensive to mitigate and prepare than it is to respond to a disaster. What needs to occur is a federal grant system providing funds to long-term care facilities like these institutions for the developmentally disabled. These funds can be used by facilities to purchase enough supplies to sustain themselves in a large-scale emergency. This would take the burden off of the local and state emergency responders and allow for facilities to aid their communities by providing them with alternatives for emergency shelter. This type of relationship was prominently featured in the New Jersey facility interview, when that particular region suffered a significant snowstorm and partnered with the local emergency management agency to provide shelter to vulnerable populations living in the community. The federal government should step in and offer grant funding to any facility that needs it in order to buy backup emergency generators, disaster supplies, and enough food and water so that a facility can be self-sufficient.

Summary

While there are more studies that need to be conducted to explore this topic, this research analyzes the emergency planning process for developmentally disabled populations living in state-run institutions. While there has been progress on meeting the needs of disabled populations living in communities on the federal level, few studies have analyzed the success of emergency planning on the organizational level – in this case, long-term care facilities. By examining emergency plans and interviewing staff members at these institutions, we begin to understand how different states face different problems in terms of policy structure, hazard risk, and rate of institutionalization. This research seeks to remind emergency management scholars of

the vast amount of work ahead in order to accommodate the needs of vulnerable populations. By determining the shortcomings faced by specific populations, we can build a dialogue on how to best serve their needs and protect them from the next large-scale disaster.

APPENDIX A

RECRUITMENT MATERIAL

Dear Superintendent/Director,

My name is Sophia Le, and I am currently a master's candidate at the University of Colorado Denver, School of Public Affairs. I am writing on behalf of my master's thesis, which seeks to examine the process of emergency planning for the developmentally disabled living in residential facilities. Your facility has been selected because it is located in the state of Washington, Colorado, New Jersey, or South Carolina.

- 1) A copy of your facility's response plan
- 2) The future opportunity for an interview with you or one of your staff members on the emergency planning activities at your facility

Your facility's participation in this study is voluntary. If you have any further questions about the study, you can contact me at sophia.le@email.ucdenver.edu, or (425) 280-2565.

Thank you very much for your time, and I look forward to hearing from you.

APPENDIX B
CODING PROTOCOL

Table B.1 Coding Protocol

Preparedness	
Disaster exercises	Description of how often and what type of mock-disaster drills are run at the facility for practice purposes
Evacuation drills	Procedures that detail the frequency and nature of how staff and residents practice exiting of the building
Hazard identification and risk assessment	Use of a mechanism or tool to determine which emergencies are most probable to a facility
Interagency coordination	Relationship established with relevant governmental agencies (Regional and jurisdictional)
Mutual aid agreements	Documents that signify agreements with outside organizations that facilities can utilize for assistance, if need be

Table B.1 Cont.

Planning Committee	Collective group of staff members put together for the purposes of emergency planning
Resident identification	Methods that help identify residents if they get separated from direct care attendants
Staff training	Nature of which employees of the facility are instructed on how to deal with emergency situations
Response	
Communication systems	Procedures that detail the types of communication tools available, especially in lieu of electricity
Disaster supply storage	A list and description of supplies stockpiled in a separate place in case of normal operations being affected in some way
Emergency Operations Center (EOC) Establishment	Predetermined location for staff to meet at and conduct disaster response activities

Table B.1 Cont.

Employee responsibilities	Duties and responsibilities of staff members
Evacuation Plan	Procedures on how to leave the premises if need be
Incident Command System (ICS)/Chain of command	Procedures outlining who is in charge in the event of an emergency
Shelter-in-Place	Procedures outlining what to do when evacuation is a difficult option
Specific disaster directives	Procedures on how to react in a variety of disaster scenarios

Recovery

Continuity of Operations Plan	Procedures that detail how a facility will resume operations after an emergency
Funding	Procedures on how to get reimbursements, post-disaster

Table B.1 Cont.

Mitigation	
Mitigation Plan	Strategies detailing how to prevent from damage caused by disasters
Warning Systems	Infrastructure that alerts individuals when there is an emergency

APPENDIX C

INTERVIEW SCRIPT

Hi, _____, my name is Sophia Le and I am conducting this research for my master's thesis. You were selected for an interview because of your expertise on the emergency planning process at your facility. Your answers are confidential and information that identifies you will be used in this research. Your participation is voluntary and this should only take half an hour or so.

If any of these questions make you uncomfortable, you can stop at any time. Your participation is important, since this project intends to explore the emergency planning process at residential facilities for the developmentally disabled. In order to consent to this interview, all you have to do is start answering the questions. May we continue?

Start time: _____

Background

What is your current position at the residential facility?

What are your main job duties?

Past Experience

Has there been a major facility emergency in the last 2-3 years? If so, could you describe it?

Has there been a major community emergency that you recall in the last 2-3 years? If so, can you describe it?

What emergencies is your facility most prone to? Has this influenced the aspects of your emergency plan? In what ways?

Preparation and Writing

How did your facility decide who would participate in the writing the emergency plan?

What references did your facility use in writing your emergency plan?

What factors were taken into account during the planning process? Region? The type of population you house? The community at large?

In your opinion, what factors are most important in planning for this particular population in emergency situations?

Implementation

Is community engagement part of the emergency response plan for meeting the needs of your residents? What methods have you used to engage the community in helping the residents in an emergency?

Do you conduct training for staff that is specific to emergencies or disasters? If so, can you describe those types?

What barriers, if any, has your facility encountered in implementing your emergency plan?

Overall

On a scale of 1-10, can you give a commitment rating of key leadership staff for emergency planning?

Commitment of staff to emergency planning?

Commitment to resident involvement for emergency planning?

Implementation of the actual plan

What would you cite as significant accomplishments in planning?

Failures?

What could be provided to your facility that would aid the planning process in the future?

Thank you for participating!

END TIME: _____

APPENDIX D

OPEN PUBLIC RECORDS ACT REQUEST

The following Request for Information has been forwarded to the Division of Developmental Disabilities in the Department of Human Services.

Your confirmation number is W55925. Please write this number down or print this page as a reference.

Requestor Information

Payment Information

First Name MI Last Name

Sophia Le

Company

UC-Denver

Mailing Address

1020 15th St. Apt. 25F

City State ZIP

DenverColorado 80202 -

Email

sophia.le@email.ucdenver.edu

Day Time

Telephone:

Area Code	Number	Extension
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425	280 -	2565
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Preferred Delivery: E-Mail

Under penalty of N.J.S.A. 2C:28-3, I certify that I Have Not been convicted of any indictable offense under the laws of New Jersey, or any other state, or in United States.

Record Request Information:

I'm looking for the emergency response plans from Developmental Centers (DC) in New Jersey. This document usually describes what the operating procedures are in case of any sort of hazard or disaster (Fire, utility failure, natural disaster) and may be also referred to as an "all hazards operations" plan. I need a plan from each of the following facilities:

Please send these plans to me via email, as they are going to be analyzed via qualitative software. If there are multiple documents that make up an emergency plan, please attach all of them. If there are any fees for this that exceed the maximum authorized amount, please contact me via email or by phone and we can discuss further. Thank you!

Maximum Authorized Cost:

\$ 50.00

Payment Method:

Check

Fees: Letter Size @ \$0.05/page

Legal Size @ \$0.07/page

Electronic Records: shall be provided free of charge, but agency may charge for cost of media, programming, clerical, supervisory assistance and/or substantial use of information technology.

Delivery: Delivery / postage fees additional depending upon delivery type.

Additional Charges: may be charged if extraordinary time/effort required.
depending upon request.

APPENDIX E

HUMAN SUBJECTS APPROVAL

Figure E.1 University of Colorado Denver Human Subjects Approval



Not Human Subject Research

Investigator
Sponsor/Co-
Sponsor
Effective Date
Title

Not Human Research

Human Comments

IRB

IRB

IRB
Effective Date
Effective Date
Effective Date

Figure E.2 Washington State Human Subjects Approval

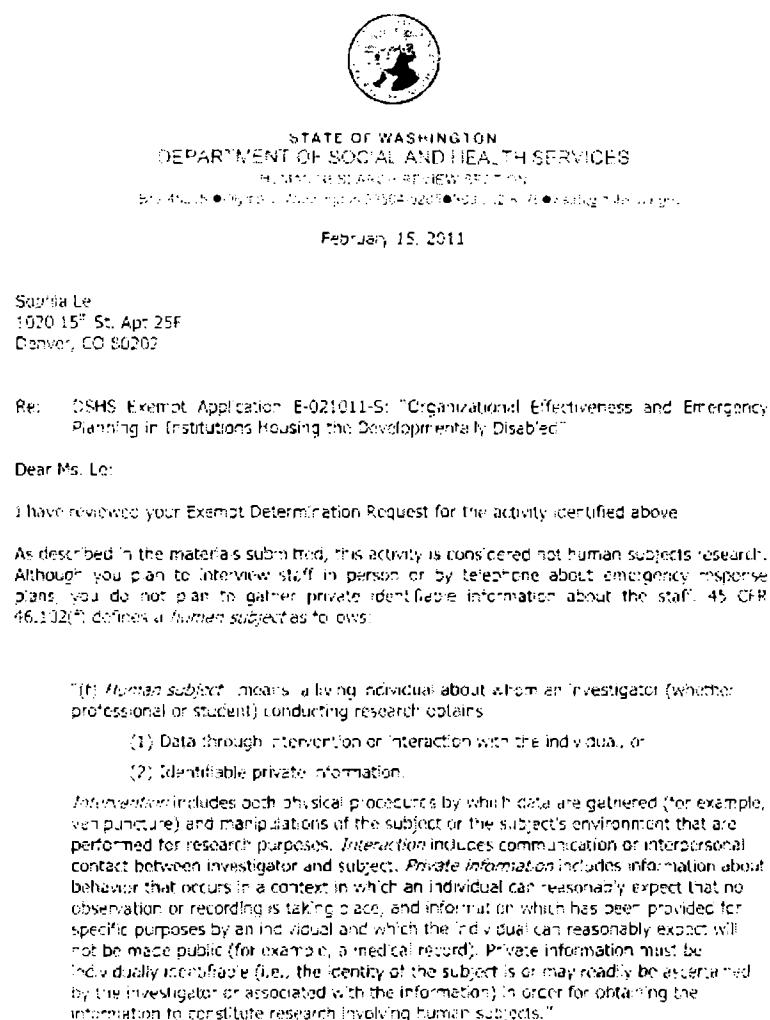
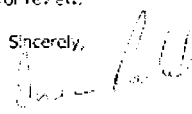


Figure E.2 Cont.

Please promptly inform us if data collected for this activity would later include the collection of private identifiable information that might change the "not human subjects" categorization.

Thank you for submitting your study plans for review.

Sincerely,

A handwritten signature in black ink, appearing to read "Doreen Packel", written over a horizontal line.

Doreen Packel, M.P.A., C.I.P.
Human Research Review Section
Department of Social and Health Services

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